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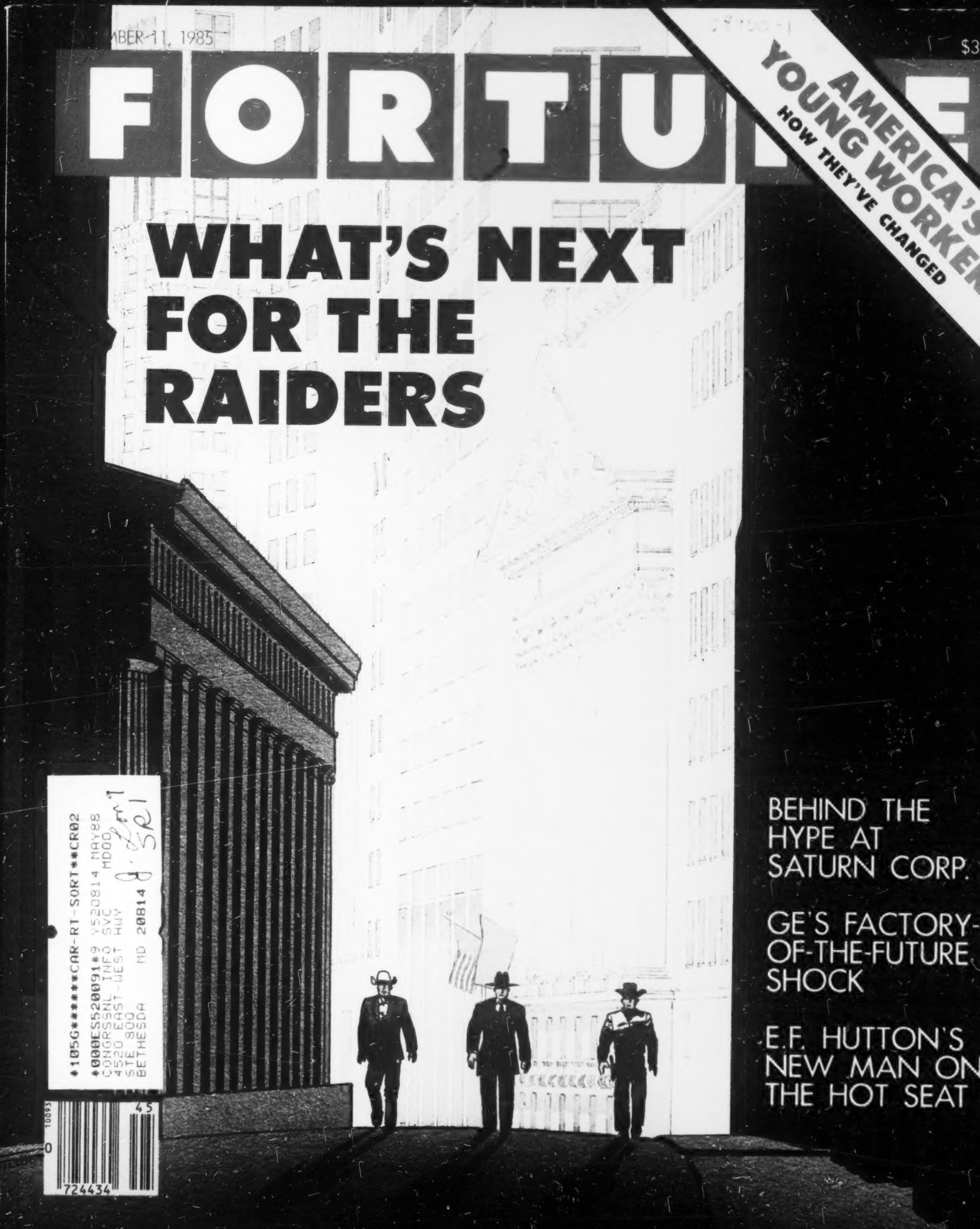
AMERICA'S
YOUNG WORKER
HOW THEY'VE CHANGED

WHAT'S NEXT FOR THE RAIDERS



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BEHIND THE HYPE AT SATURN CORP.

GE'S FACTORY-OF-THE-FUTURE SHOCK

E.F. HUTTON'S NEW MAN ON THE HOT SEAT

NOVEMBER 11, 1985 VOL. 112, NO. 11

FORTUNE
Looking Ahead

FORTUNE
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CORPORATE PERFORMANCE

BEHIND THE HYPE AT GM'S SATURN

The vaunted but vague small-car project will rely on impressive new manufacturing techniques and a high-tech marketing plan. Uncertainties abound, but Saturn stands a good chance of radically narrowing Japan's cost advantage. ■ *by Anne B. Fisher*

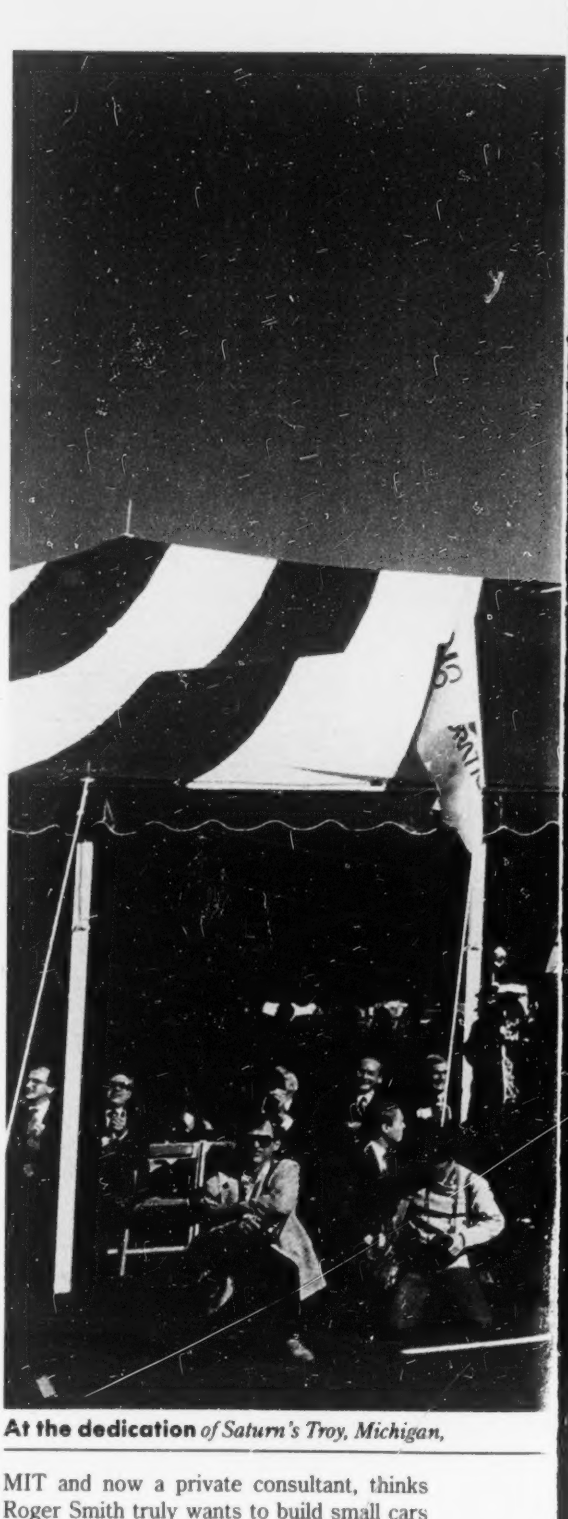
ONE OF THE best-known small cars in America doesn't exist yet. The blaze of publicity surrounding General Motors' hunt for a place to build its proposed Saturn subcompact fired speculation that GM might really be able to produce a little car that could compete in quality and price with Japanese models. Now that GM has chosen Spring Hill, Tennessee, as Saturn's birthplace, a hush has fallen. Executives at the Saturn subsidiary, many of them freshly appointed, aren't talking—although at last count a waiting list of 120 reporters clamored for details about the car GM Chairman Roger Smith calls "a project of cosmic dimensions." Explains a weary Saturn spokesman: "The design of the car isn't final yet. The design of the plant isn't final yet. We've already told the media more than we know ourselves."

That's a bit of an exaggeration. Crucial elements of Saturn are taking shape. From talks with auto industry analysts, consultants, and insiders willing to spill a few beans, FORTUNE has pieced together considerable detail about Saturn's promise—and problems. The project, which represents a determined departure from GM's change-resistant corporate culture, will rely on impressive new manufacturing technology and an innovative high-tech marketing plan. Plenty of uncertainties remain, including the status of Saturn's groundbreaking contract with the United Auto Workers, the appeal of the car, and the likely state of the small-car market into which it will be launched.

The ultimate uncertainty is whether GM can match the Japanese in the small-car business. Some skeptics doubt that it even intends to try. They note that General Motors will spend $3.5 billion to build the Saturn plant in Spring Hill, about six times the $600 million GM just spent to construct its Hamtramck assembly plant in Detroit, now considered one of the world's most technologically advanced. Even at a production capacity of 500,000 cars a year, about twice that of Hamtramck, and regardless of how much labor costs are trimmed, the critics figure Saturn's astronomical fixed costs will make the car substantially more expensive to build than a Chevette. Since the Chevette already costs about $2,000 more in the making than a comparable Toyota (see chart), they wonder how Saturn can catch up.

What the company really intends, according to this argument, is to use Saturn as a laboratory to develop new technology for mid-size and big cars, where profits are fatter and the Japanese haven't yet got a stranglehold on the market. Thus Saturn, the car, may be a decoy intended to win political and union concessions while diverting attention from GM's plans to bring plenty of small cars into the U.S. from the factories of its Japanese partners, Isuzu and Suzuki, and some from South Korea's Daewoo.

Other auto industry experts are less suspicious. Martin Anderson, former director of the Future of the Automobile Program at MIT and now a private consultant, thinks Roger Smith truly wants to build small cars efficiently in the U.S. and that Saturn stands a good chance of pulling it off. "They can lose money on the car for a while and still have the project be a success," says Anderson. "After all, $5 billion is a normal investment for a whole new car line, and that generally takes seven to 12 years to amortize." The key, according to Anderson and other analysts, will be Saturn's ability to cut costs



At the dedication *of Saturn's Troy, Michigan,*

RESEARCH ASSOCIATE *Sarah Smith*

corporate headquarters, GM Chairman Roger Smith (center) and Michigan Governor James Blanchard applaud Saturn President William Hoglund.

in the subassembly and assembly of the cars.

When the first Saturn car rolls out of the Spring Hill plant in 1989, it will embody every new cost-slashing technique GM can come up with. Most of the new processes are aimed at chopping back labor costs. David Cole, director of the Office for the Study of Automotive Transportation at the University of Michigan, estimates that Japanese carmakers now put about 100 hours of labor, including suppliers' labor, into each small car they build. That's about half the time U.S. automakers require. Cole thinks Saturn could build a car in 40 hours, or even 30, saving hundreds of millions of dollars each year. At Spring Hill the construction of modules, such as seats and instrument panels, which are then attached to a car's frame, probably will be done by outside suppliers. In conventional auto plants, subassembly is often done on the line, where the cost of labor averages $23 an hour (including benefits). At suppliers, the same labor costs as much as 50% less.

Saturn will save more hours, and dollars, by eliminating the old-fashioned assembly line. In most auto factories a car's frame moves along miles of conveyors, getting a different part at each work station—and passing through each station whether or not it needs the particular feature the station supplies. The Saturn plant will be built with an automatic guided vehicle (AGV) system instead. Rather than riding on a conveyor, each car will be mounted on a cart that will follow a network of wires embedded in the floor. The wires will carry electronic orders to take each car only to those stations where it has to go. The AGV system could improve product quality too. Because every assembly line moves at a predetermined speed, a car sometimes slips away from a worker before he has a chance to do his job right. With Saturn's AGV system, each car will stay at each station until it gets what it needs. Just a couple of extra seconds could help reduce the number of annoying little flaws that have plagued U.S.-made subcompacts.

In a joint venture with the Japanese robot maker Fanuc, GM has been developing supersmart machines to save labor and boost product quality. Saturn is also buying high-tech equipment from outside suppliers. One such machine, developed by Perceptron Inc., a Michigan electronics company, is already in place at the Hamtramck plant. It's a 122-laser camera that measures sheet-metal tolerances to within one ten-thousandth of an inch. The camera can help ensure that body-panel fit, one area in which the Japanese excel, will be virtually impeccable—not only to the lasers but to the customer's naked, not to mention jaundiced, eye.

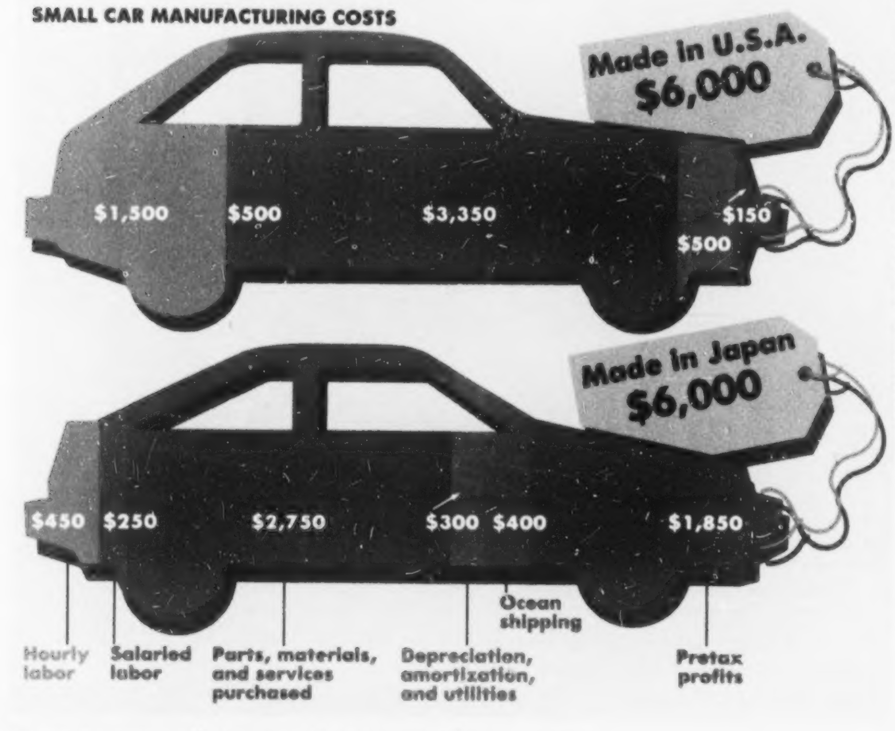
Saturn's labor-saving techniques won't be perfected overnight. A planned robotic loading dock, for example, may take a while to debug. Using vision electronics, robots that can "see" will be programmed to unload trucks full of parts as they pull up to Saturn's doors. A seeing robot is already on the job at GM's Buick City plant in Flint, Michigan. Does it work? "Well, it requires precision timing," confides a GM executive. "If the robot reaches for a part that isn't there yet, the system shuts down."

Even assuming GM can invent a robot with enough sense to wait until the truck shows up, Saturn's ability to eliminate human labor isn't unlimited. Roger Smith talks of Saturn as a "paperless company" where electronic systems—to be developed by EDS, the Dallas software company GM bought last year—will replace mountains of paperwork and legions of clerical staff. As an example, Smith cites Saturn's paperless expense account system, which allows executives to do expense reports on desktop terminals, then flash them to the accounting department. But the most cumbersome part of expense account reporting is the pile of receipts the IRS requires companies to hold for three years. Someone has to tally up the receipts, file them, and move them around. Saturn will do that the same old way.

GM'S COST SLASHING won't stop at the company's own doors. According to some studies, distribution accounts for 25% or more of the cost of a small car. GM is determined to cut that down by trying out a new system at Saturn. Although Chevrolet dealers will be offered first dibs on Saturn franchises, the cars probably will be sold separately from current dealerships. That's intended, in part, to improve quality. On customer satisfaction surveys, which include questions about whether a dealer repaired a car correctly on the first try, GM does not score well. "We have very little control over dealer performance, and it is frustrating as hell," says a high-ranking GM executive who asked not to be named. "With Saturn we're free to try something different." Roger Smith has warned that Chevy dealers with histories of customer complaints can forget about selling Saturns.

Until now, GM and other U.S. carmakers have been slow to capitalize on their one obvious distribution advantage: their factories are closer geographically to American customers than most Japanese plants are. To make the most of that, Saturn is developing a computer system that will let customers order a Saturn by pushing buttons on a computer terminal at a Saturn dealership. The order, complete with whatever options the customer has chosen, will go into the computers at Spring Hill. Within hours, the factory will begin to build the car. Roger Smith says a customer will probably wait no longer than two weeks, wherever he may be in the U.S., for delivery of his custom-made Saturn.

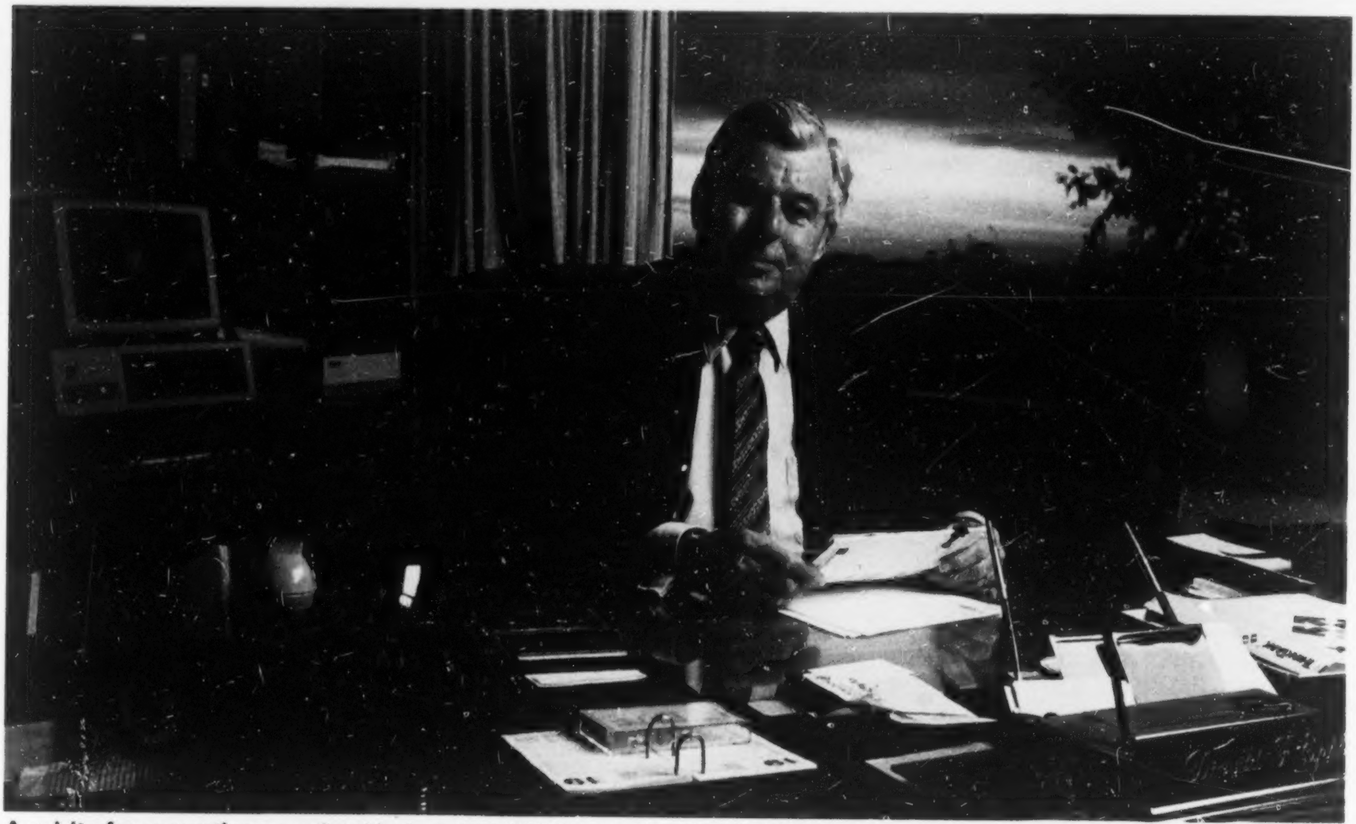
Like most of the technology Saturn will depend on, the software to order a custom-made GM car already exists. EDS developed it, and Chevrolet started giving away the diskettes to home computer users in California earlier this year. Called Chevy Tech, the program is aimed at consumers thinking of buying a Chevy Cavalier, Celebrity, Camaro, S-10 pickup truck, or S-10 Blazer. The software lists the available combinations of fea-



ESTIMATES: KIM B. CLARK, HARVARD BUSINESS SCHOOL. ILLUSTRATION: JAVIER ROMERO

Anatomy of Japan's Cost Edge

How big is the small-car cost gap between the U.S. and Japan? Depending on who does the estimating, numbers vary from $1,000 to $3,000; the most widely accepted figure is around $2,000. Auto industry analysts agree that despite years of effort, profits of the Big Three American automakers on little cars like the Chevy Chevette and the Ford Escort are still subcompact. Lean Japanese labor costs are a major reason for the far higher profits on a Toyota Corolla or a Honda Civic. With Saturn—whose price is also expected to be about $6,000—GM will try to match the Japanese.



A spirit of cooperation *was reflected in the contract UAW Vice President Donald F. Ephlin (above) helped engineer for Saturn. It may not last.*

tures and options on the various models. By popping a diskette into his Apple II computer, the user can assemble the car he wants, and get an idea of its price, before he goes out to see a dealer.

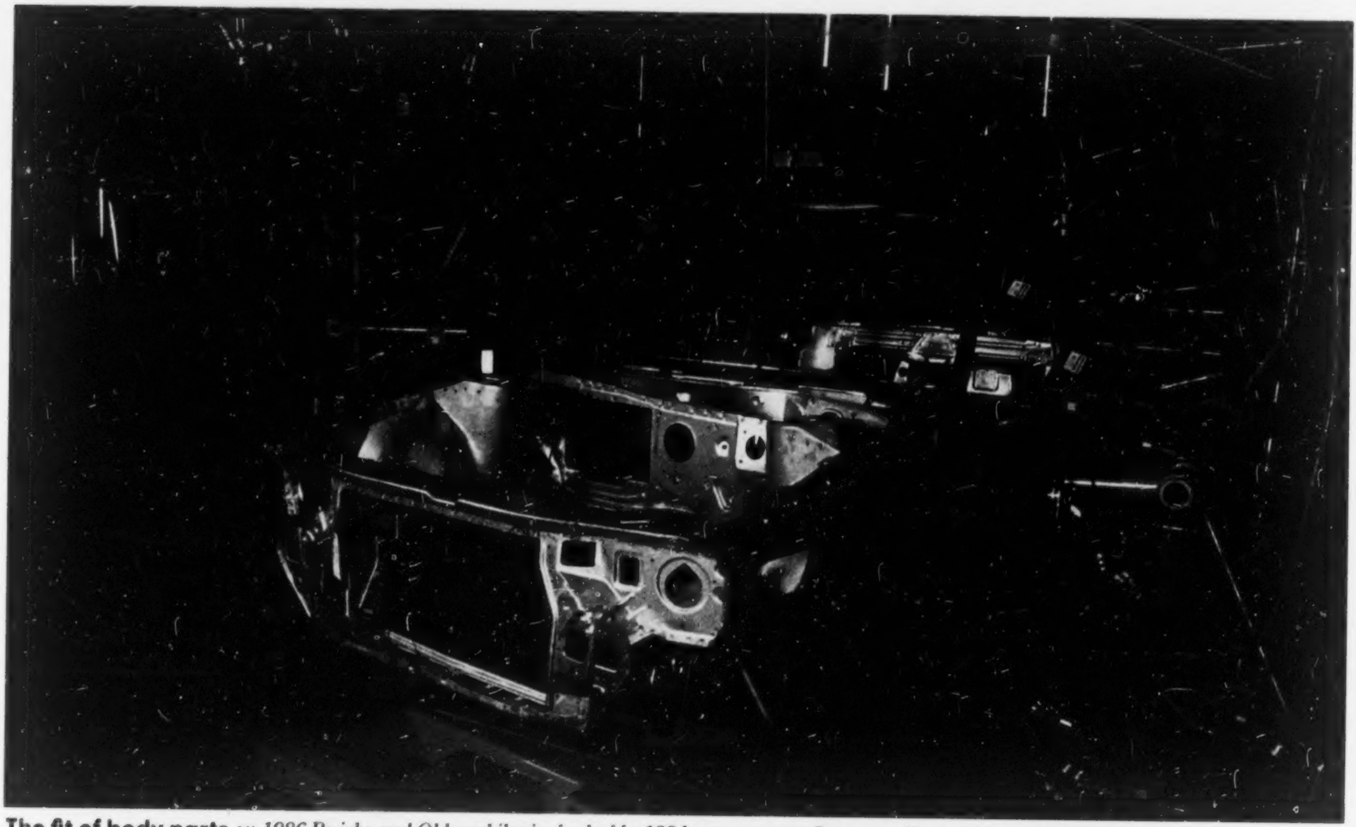
FOR SATURN dealers, the beauty of paperless ordering would be far lower overhead. Rather than stockpiling 100 cars or more, typically financed at two percentage points above the prime lending rate, a dealer would need just one or two cars on hand as demonstration models. A Saturn franchise could thus be more efficient than the sprawling premises dealers usually need. Saturn executives have hinted that perhaps a small storefront in a shopping mall would do. With his costs pared, a Saturn dealer could make a comfortable return without a big dealer markup—another salvo in GM's fight to make Saturn price-competitive against imports without sacrificing profits.

Saturn expects to achieve other big cost reductions in low-tech, commonsensical ways. Take shipping costs. John Debbink, until recently GM's vice president of materials management, says total transportation costs, including the expense of moving parts from far-flung suppliers to GM's assembly plants, frequently exceed even direct labor costs as a proportion of manufacturing expenses. Saturn will change that by including under one roof the plants that will make virtually all major parts of the car. The complex, when it's completed in about two years, will cover six million square feet, or about 140 acres. Besides the car factory itself, it will be home to a stamping plant to make metal parts, an engine plant, a forging operation to supply parts to the engine plant, and perhaps even a factory to turn out plastic parts. Locating suppliers close at hand, as Toyota and other Japanese automakers have done, not only eliminates the substantial cost and possible damage involved in moving heavy parts over long distances. It also makes Japanese-style just-in-time inventory management more practical. There's no need to stockpile parts if a shortfall can be corrected in five minutes rather than five hours or five days.

U.S. carmaking technology is now far more capital-intensive than that of Japanese competitors, and the gap is likely to grow as American companies add increasingly agile automation (FORTUNE, October 28). Yet heavy spending on electronic gadgetry is no guarantee that Detroit can succeed in the small-car game. Says James Harbour, a Michigan consultant who has extensively studied U.S. and Japanese automaking costs: "Seventy percent of the problem with American auto companies isn't technology related. It's management related." By comparison with Japanese automakers, U.S. car companies have long been top-heavy, bureaucratic, and shot full of antagonism between management and labor.

As an attempt to change all that, arguably its most crucial mission, Saturn Corp. is off to an uncertain start. Faced with the task of carving a lean, egalitarian operation out of GM's hulking hierarchy, Saturn's managers and engineers are feeling "understaffed and overwhelmed," according to one insider. During several recent weeks, for instance, a burning issue among Saturn staffers was whether engineers and managers of a certain rank should get to drive company cars or not.

Saturn-gazers inside and outside GM agree that William Hoglund, 51, who was appointed president of Saturn last February, seems well suited to the task of rethinking GM's ways. Hoglund is a veteran of the Pon-



A. DAVID KRYSZAK—VISIONS

The fit of body parts *on 1986 Buicks and Oldsmobiles is checked by 122 laser cameras. Saturns will get the same treatment.*

tiac division. He had taken over in 1980 when Pontiac's sales were rusting out. By focusing on younger, better-off customers than Pontiac had wooed in the recent past, and by recasting the Pontiac image to emphasize sporty thrills, he put the division's sales and earnings back in the race. He also picked up a reputation as a smart, imaginative manager who was willing to listen. The Pontiac Fiero, a sporty two-seat, mid-engine car introduced in 1984, was originally supposed to be called Sunfire. But assembly-line workers building the car complained that Sunfire was a wimpy name. Hoglund went to the plant, talked with the workers, and decided they had a point.

At Saturn he'll be doing a lot more listening. A major part of Saturn's bid for Japanese-style efficiency involves a process known as simultaneous engineering. In the past GM's design engineers often drew up blueprints for new models without consulting the manufacturing engineers charged with building the cars or the marketers charged with selling them. The disadvantages, in hindsight at least, were obvious: the auto that came off the line usually had been altered somewhat—not always for the better—because of practical considerations the designers hadn't thought of. And the marketing staff would be given a product that wasn't quite what dealers said customers wanted. Simultaneous engineering is intended to avoid those problems by getting everyone working together from the outset. It's a sensible idea, though not one that Saturn staffers, mostly veterans of the old GM culture, have had much practice with. "Anytime you make a change like this, you have a few people who want to squabble over turf," observes a close Saturn-watcher. "But so far, it's gone pretty smoothly."

INDEED, the skirmishes over turf may prove to be nothing compared with the possible battle between Saturn and the United Auto Workers. Intent on negotiating a contract for Saturn that would cut labor costs without incurring workers' wrath, GM took the unprecedented step of inviting the UAW in on the planning of the Saturn project back in December 1983. It was the first time—despite requests from the UAW dating back to the 1950s—that the union had been allowed to participate in any kind of corporate planning at GM, and both sides came to the table in a conciliatory mood. The result was an innovative contract, signed last July. The UAW agreed to give up restrictive work rules that hamper productivity and to accept guaranteed salaries—not hourly wages—of only 80% of the average wage paid to workers in the rest of the industry. The other 20% would be made up, or not, by profit sharing and an incentive plan based on workers' performance. In exchange, GM promised lifetime job security to 80% of Saturn's workers and offered them a greater voice in decision-making than they've been accustomed to at GM or elsewhere.

Both sides felt they had won, and pundits predicted the Saturn contract would become the model for other labor-management pacts inside and outside the auto industry. "If this succeeds, you could legitimately call it revolutionary," says Martin Weitzman, an economics professor and labor relations scholar at MIT. "The union is recognizing, finally, that the well-being of workers is intrinsically tied to the well-being of the company. They are not trying to pretend these are two different things anymore."

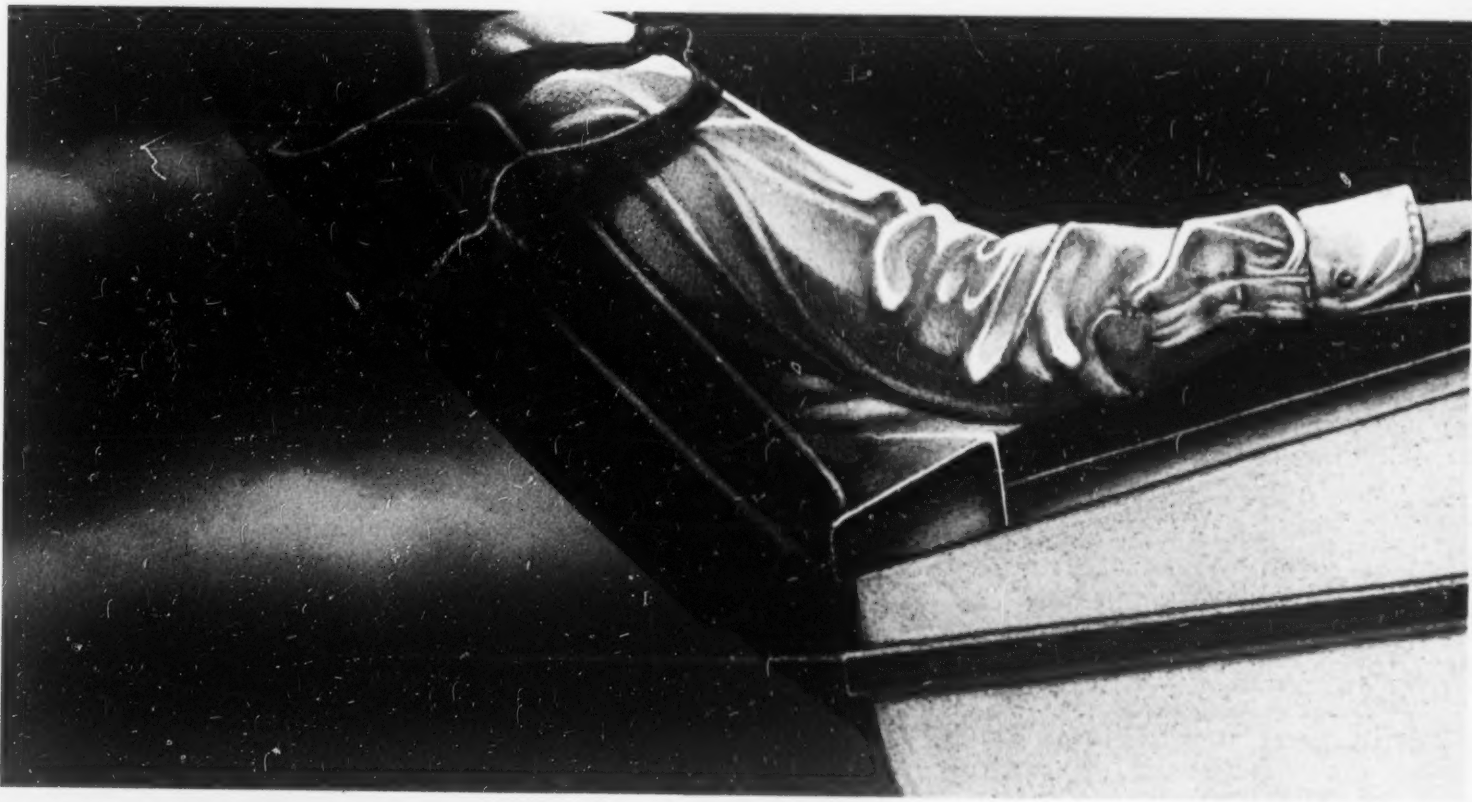
But there is one problem with the Saturn-UAW contract: it may be illegal. The National Right to Work Legal Defense Foundation, a nonprofit group in Springfield, Virginia, that provides legal aid to people who feel coerced into joining unions, noticed that the Saturn pact names the UAW as the collective bargaining agent for all Saturn workers—even though no workers have been hired yet. The contract also says that the "primary source" for recruitment of Saturn workers will be current UAW members; the UAW will represent all Saturn workers, whether or not they join the union. As the foundation sees it, the National Labor Relations Act of 1935 proscribes both provisions. So the Right to Work Foundation alerted the National Labor Relations Board. The agency, which enforces labor laws, intends to schedule hearings soon.

Neither GM nor the UAW cares to comment on the challenge to the contract, except to say, as a Saturn spokesman did, that both are "taking the matter seriously." They will probably argue that Saturn, as a separate corporation from GM, is entitled to a separate contract. But in the same breath they'll argue that in some ways the Saturn pact is only an extension of the agreement GM already has with the UAW, and therefore it's all right to assume that the union will represent Saturn workers. The NLRB has heard other cases of companies wanting their cake and eating it too, but none quite like this. For that reason, according to observers like Edward B. Miller, a former chairman of the NLRB and now a labor lawyer at the Chicago firm of Pope Ballard Shepard & Fowle, it's hard to predict the outcome. Says Miller: "It's going to be a close call."

IF THE NLRB chucks out the Saturn contract, the union stands to lose a good deal more than GM. Because Tennessee is a right-to-work state, nobody has to join a union. The UAW may have a hard time persuading Spring Hill residents eager for Saturn's jobs that they'd be better off paying union dues. Thirty miles up the road in Smyrna, Nissan runs a plant that the UAW hasn't been able to crack. If GM can do without the union altogether, it could cut labor costs even more than the current contract allows and do all its own decision-making besides—just like very old times.

About the car that will emerge from the Saturn project, and presumably determine its success or failure, GM has had little to say. Last January, in a rare and sketchy description, GM allowed that the Saturn would be a subcompact available in two- and four-door models, and that it would seat four people. Presumably the company meant four short people, since the Saturn will be only "slightly larger" than the Chevrolet Sprint, a minicompact GM imports from Suzuki Motor Co. of Japan. Roger Smith also said he expected the Saturn to be more expensive than the $5,000 Sprint. At around the same time, GM trotted out a cherry-red Saturn prototype that President Reagan took for a spin. But that prototype may bear little resemblance to the final product, or even to the prototypes that Saturn is now testing at a Fort Knox-like track southeast of Mesa, Arizona. Predictably, Saturn executives are mum on the matter of the car's looks and features—except to crow, as Bill Hoglund did at a dedication ceremony for Saturn headquarters in October, that it is "an outstanding-looking car."

It had better be. From the beginning GM



TWA's 747 BUSINESS LOUNGER ↘ TO EUROPE vs. THE SEAT ↘ . YOUR FEET ARE ↗

has played down the car, saying the new systems used to make and sell it are the project's real glories. However, people don't buy systems, they buy cars. Says Chris Cedergren, an auto researcher at the Los Angeles consulting firm of J.D. Power & Associates: "The product is all important. If Saturn turns out to be another Honda Civic, GM has hit a home run. But if Saturn is a shrunken Chevy Cavalier, they're dead."

Saturn's fate in the marketplace will depend largely on the state of the marketplace itself. By 1989, just as the first Saturn cars hit the road, most auto analysts expect a harrowing price war in small cars, similar to the one that has wrecked Japanese automakers' profits in their home market for the past several years. The cause will be the same: too many little cars chasing too few customers.

INVESTOR'S SNAPSHOT

GENERAL MOTORS

SALES (LATEST FOUR QUARTERS)	**$88.7 BILLION**
CHANGE FROM YEAR EARLIER	UP 7%
NET PROFIT	**$3.5 BILLION**
CHANGE	DOWN 33%
RETURN ON COMMON STOCKHOLDERS' EQUITY	**14%**
FIVE-YEAR AVERAGE	8%
RECENT SHARE PRICE	**$69.75**
PRICE/EARNINGS MULTIPLE	**6**
TOTAL RETURN TO INVESTORS (12 MONTHS TO 10/11)	**−3%**
PRINCIPAL MARKET	**NYSE**

Explanatory notes: page 194

Many of those cars will come from Japan, now that import restraints are easing. By 1988 Toyota, Mazda, and Mitsubishi will be building cars on American soil. Nissan and Honda are already here. Hyundai, a Korean carmaker, swept into Canada last year with two small cars: the Hyundai Pony and the Stellar. Together they have become Canada's best-selling auto imports, seizing 22% of the market within the first eight months of 1985. Hyundai will head for the U.S. with another small car, the Excel, in 1986. Security analysts think cars like the Yugo GV, the $3,990 minicar from Yugoslavia that recently went on sale in America, may also chip away at sales of higher-priced subcompacts. According to a study by Howard Leonard, an auto analyst at Provident National Bank in Philadelphia, 25% of cars sold in the U.S. last year were imports or "immigrants"—products of foreign companies, but built here. Leonard says the percentage will double by 1989.

The proliferation will come at a time when demand is unlikely to grow enough to absorb the number of cars manufacturers will be peddling. A report by J.D. Power & Associates shows just under 1.9 million sales of cars priced between $5,000 and $9,000 in 1984. By 1991, Power's forecast says, the number will grow to 2.5 million—an increase that would soak up only about half the extra new cars likely to be around then. Says researcher Cedergren: "We are expecting a lot of price competition with heavy discounting—and the worst of it is going to hit in the $5,500 to $7,000 range." That could put Saturn, which is supposed to sell for about $6,000, directly in the line of fire.

It won't be clear for years whether GM's Saturn gamble will yield a cost-competitive small car that consumers will want to buy. But using a combination of new technology and old Japanese know-how, the odds are good that Saturn can come close. In the process, GM will teach itself—and the rest of the auto industry—quite a lot about how to run a car company in the 21st century.

NOT ↘. YOU'LL BE AMAZED WHAT IT DOES TO THE REST OF YOU. LEADING THE WAY. TWA.

DECEMBER 23, 1985

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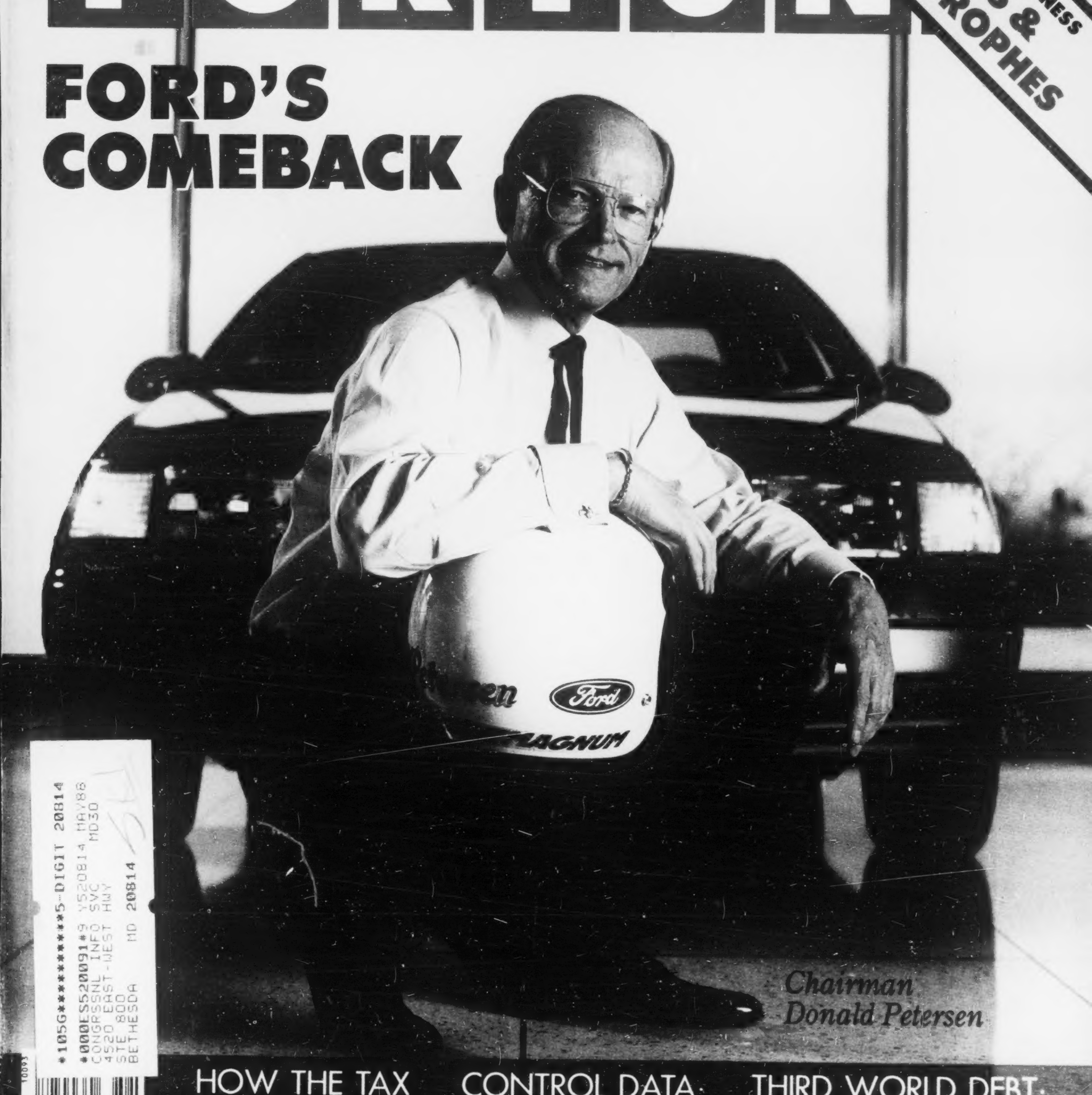
FORTUNE

THE YEAR IN BUSINESS
COUPS & CATASTROPHES

FORD'S COMEBACK



Chairman Donald Petersen

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CONTROL DATA: DOES IT HAVE A FUTURE?

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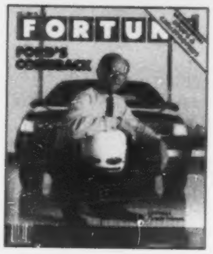

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WHY BAKER'S DEBT PLAN WON'T WORK

Treasury Secretary Baker is asking banks to increase lending to Third World countries. He ignores the awful truth: the countries already owe too much. The only logical solution—a painful one—is for the banks to own up to some big losses on their loans.

■ *by Carol J. Loomis*

THOUGH widely hailed as bold and innovative, Treasury Secretary James A. Baker's plan for solving the Third World debt problem won't work. Like the plan in place up to now, this one doesn't face up to the deep-down truth about the debt problem: the debt is too big for the debtors to handle on a sustained basis. Their burden must be lightened. That can happen only if the banks holding the countries' debt agree to take less from the debtors than they're now demanding. Taking less will mean write-downs of the banks' loans—the excruciating step the banks have been avoiding for years.

In private some bankers concede the countries can't live with their debt. In public many are busy lining up behind Baker's plan, which would throw more money at the problem—granting the countries new loans to pay the interest on their old, and therefore getting both debtors and creditors in deeper. By fuzzing up the essentials of this problem and encouraging optimism where none seems warranted, the plan may also postpone a reckoning. But that will simply increase the amount of pain that will eventually have to be distributed.

In dollars, the problem is bigger than it was three years ago, when Mexico, Brazil, and a slew of other Third World countries fell into desperate trouble on their foreign debt and inspired Plan 1. The countries, their creditor banks, and the International Monetary Fund swung into emergency case-by-case action aimed at getting everybody through what many labeled a "temporary liquidity problem." The strategy required that new money be lent the countries in return for their making economic "adjustments." They did so—buckling down to harsh austerity programs and achieving trade surpluses, which provided hard currencies for debt service. By now this plan was to have restored many of the countries to creditworthiness. It has not.

Worse yet from their creditors' standpoint, some countries have become newly defiant about their debt. They are up in arms about the austerity that has been their lot and ominous in warning that the hardships threaten their democracies.

The fragility of the situation brought in Baker with a plan aimed at easing the unrest, keeping the countries in line on their debt, and edging them once again and evermore toward creditworthiness. The plan takes in 15 debtors, roughly describable as middle-income countries deeply in hock to the banks and pariahs in the credit markets. The 15 owe a blockbuster $437 billion, carrying interest of around 10%. Baker's plan calls for adding $40 billion to the debt over the next three years, half to come from banks, half from official creditors such as the World Bank. But this money is to be lent only if the countries make "structural changes" that are supposed to invigorate their economies, in theory enabling them to grow their way out of the debt problem.

The impediments to this plan are many (see box), and it may never fly. It shouldn't. Baker is right about countries needing to grow. But they can't while devoting so much of their resources to servicing debt—not now, still less with Baker's billions. By focusing on 15 countries with measurable economics, Baker's plan illuminates the mathematical and political impossibility of staying the course we're on.

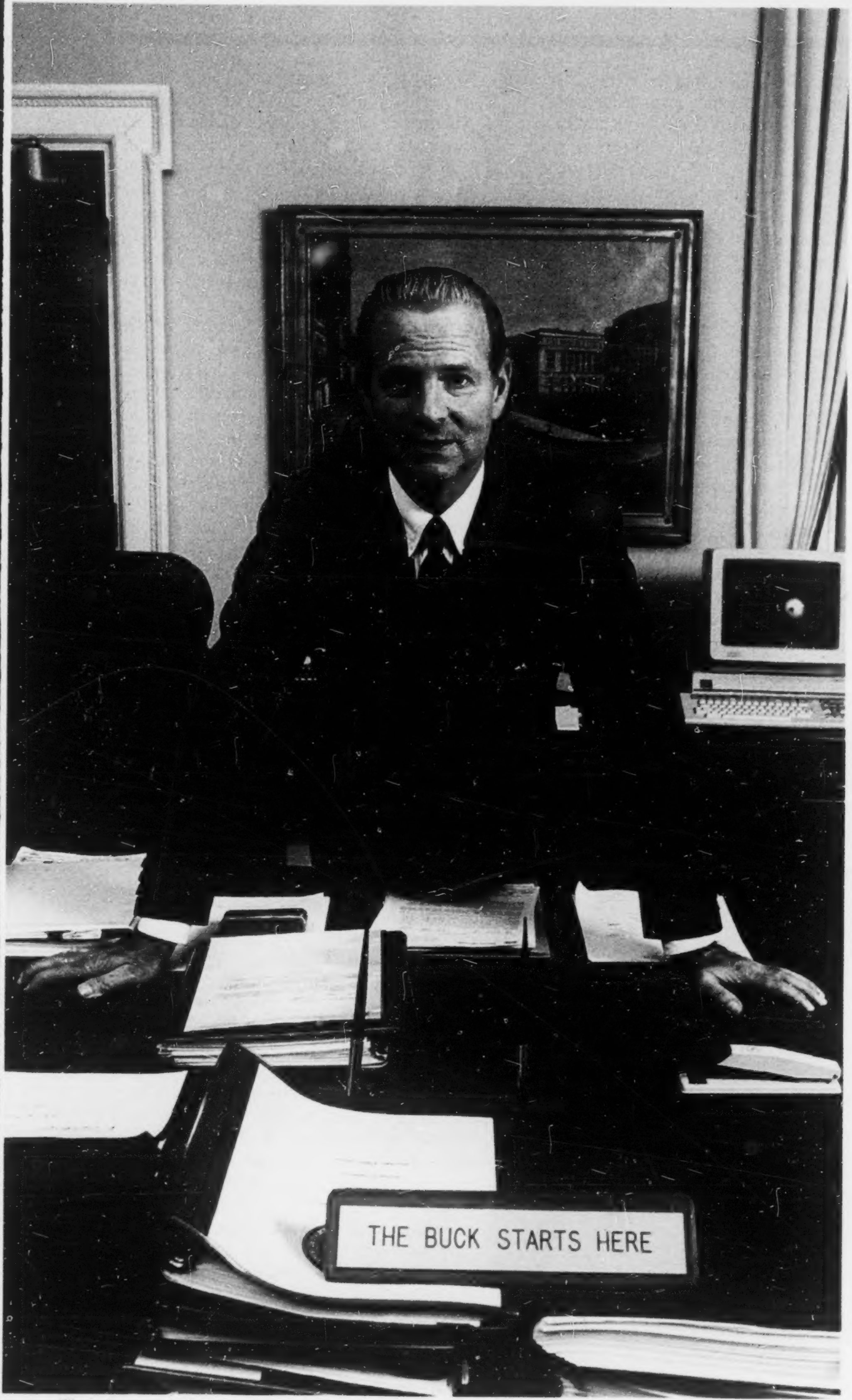
The 15 countries overdosed on borrowed funds in the 1970s and early 1980s. The greater fools were the banks who let them do it. "Large borrowers," an expert once warned, "are apt to control the bank; and when this is the relation between a bank and its customers, it is not difficult to decide which in the end will suffer." The expert: Hugh McCulloch, first U.S. Comptroller of the Currency, who delivered this warning in a letter to national banks in 1863.

McCulloch also urged that loans be well secured and short in term. He surely could not have imagined that banks would become trapped in loans of extended maturity, made to sovereign borrowers which the banks could not force to pay. In the sweep of history, commercial banks were not until recently major suppliers of capital to less developed countries. They left that risk to others to whom it was more suitable. Among these were bondholders who went down the tubes when various Latin American governments defaulted on foreign debt a half-century ago.

Unmindful, banks leaped into the Third World game in the late 1960s. Their Pied Piper was Citicorp, which had set a goal of increasing earnings 15% every year and saw overseas profits as a golden way to do it. Today, of that $437 billion owed by the 15 countries (which are, of course, only some of the Third World borrowers), commercial banks worldwide hold $275 billion. Of that, U.S. banks hold $94 billion, about 85% of it on the books of the 24 largest banks. The leader, still, is Citicorp, whose Citibank has an estimated $12 billion of the debt.

The U.S. total of $94 billion is an enormous threat to the banks. First, the debt produces roughly $10 billion in interest revenues annually, and the disappearance of all or much of that income would be disastrous for profits. How disastrous is difficult to say be-

RESEARCH ASSOCIATES *Lorraine Carson and Rosalind Klein Berlin*



The sign *on Baker's desk catches the spirit of his plan to lend more to Third World debtors.*

DENNIS BRACK—BLACK STAR

cause the disappearance of the revenue would cut taxes and perhaps also some operating costs. But many banks don't pay much in taxes, and operating costs wouldn't drop automatically because revenues fell. Profits could get hit *hard.* For perspective: total profits of the 100 largest U.S. bank holding companies in 1984 were $7.8 billion.

Second, if the borrowers cut back interest payments, accounting rules say banks must write down the loans. These charges in turn make their way through the income statement. Their threatened size is so large that they could create huge losses, which would decimate the equity capital of the banks.

Because U.S. banks have sharply increased their capital in recent years, partly out of fear of the debt crisis, this $94-billion debt bomb has shrunk somewhat in relative importance. The debt is now a mere 110% of the total equity capital of the 100 largest bank holding companies, compared with 140% in 1982. That understates the problem for the money center giants, though. The amount the 15 countries owe Citibank, for example, is an estimated 180% of Citicorp's equity, compared with an estimated 230% in 1982. The amounts of lending Baker proposes are relatively modest and probably wouldn't keep banks from further lowering their ratios.

TODAY'S PERCENTAGES slightly overstate the size of the threat to banks in two ways. First, banks have already charged their income statements for expected losses on certain foreign loans—though, alas, they have not trod that conservative path very far. Second, if the loan values still on the books were to be wiped out partially or entirely, the charges would be tax deductible—assuming the banks had taxes to pay and current tax laws prevailed (see Politics & Policy). Which gets back to basics: we are talking about a powerful threat. The stock market has acknowledged it. Money center bank stocks have sold at low price-earnings multiples for years. How much further the stocks might sink if the banks owned up to reality and made wholesale write-downs is unknowable.

The factor keeping the threat in check is the interest payments on the debt. If interest stopped coming in from major borrowers such as Brazil and Mexico (which by one means or another have kept paying), bank profits would be blasted, big write-downs would follow, and the fish would be in the soup. These facts rivet the attention of bankers on keeping the interest coming.

These facts also lead to a great charade, involving the gap between the interest the debtors owe and the funds available to pay it (other than from the banks). To fill this gap and to preserve the illusion that, yessir, just about everybody's current, the banks have in the past three years stepped up to a program of forced support. As things work, the banks lend money to the countries, which then pay all or part of it back as interest on their giant pre-existing loans—a shuffle the trade calls "round tripping," though they might also call it borrowing from Peter to pay Peter. Naturally the new money lent swells the total debt and therefore the burden the countries must service next time around. Those loans also get the banks in deeper.

In the early, halcyon days of the debt crisis, bankers talked a lot about actual paydowns of the debt. Nobody does that now. Instead, the drill is repeated restructurings of the debt, which means stretch-outs and rollovers (a banker's term inspiring the quip "a rolling loan gathers no loss"). So many restructurings have occurred that even international bankers can't keep them straight. But they never forget the goal. Says a senior officer of a New York bank, who asked for anonymity, "The interest is the mountain we have to climb, not repayment."

So what are the prospects for climbing the mountain, year after year, generation after generation? The interest bill for the 15 countries is now about $45 billion annually. The hard currencies needed to meet the bill can be generated by the countries in various ways. The basic do-it-yourself way is to run trade surpluses. The outside-help way is to get infusions of foreign capital, including those round-tripping loans from banks.

In the old days, trade surpluses for the 15 were rare. When the debt crisis broke in 1982, however, the countries moved into their austerity programs, slashed imports (from luxuries to Caterpillar tractors), and began to deliver surpluses. The countries were stars in 1984, when the combined surpluses of the 15 were $44 billion, almost enough to cover their combined interest bill. That turn of events reduced the need of some countries for new loans and encouraged optimism about the debt problem.

BUT TIME is showing that these big surpluses cannot be sustained, partly because the austerity programs have begun to crumble. This year trade surpluses are expected to be only $35 billion or so. Thus we are ending a three-year period in which the countries failed, despite a good hard try and major belt-tightening efforts, to earn the funds they need for interest. Moreover, Baker has implicitly predicted failure for the next three years. His call for $40 billion in new loans over the period implies the 15 countries are going to come up short by that amount.

Baker appears to view these next three years as preamble, a getting-collected period in which those invigorating economic changes will begin to work their magic. For this period, he is saying, the creditors need to hang in there, helping out. Thereafter, as he seems to see it, at least some countries will bounce to self-sufficiency, able on their own to cover the interest bill on their debt.

ANDRES LONGH

He won't pay: *Peru's new president, Alan García Pérez, has made bankers see red.*

The unlikelihood of that is demonstrated by some big-picture facts showing how heavy the debt burden is for the countries. Economists often compare debt with exports, and some say, as Morgan Guaranty economists did in a 1983 study, that a country courts peril when it lets its foreign debt get as high as twice annual exports. At that level and up, so the thinking goes, debt service consumes too large a portion of export income, leaving too little to finance imports.

Unfortunately, most of Baker's 15 are miles above that sane debt-to-exports level, including such big Latin American debtors as Brazil, Mexico, Argentina, and Chile. Their debt is about four times their estimated 1985 exports. The interest they owe eats up roughly half their export income. To accommodate the interest bill, the countries have put a vicious squeeze on imports, which looks politically unsustainable.

Another view of the mountain to be climbed can be gained by comparing the $437-billion foreign debt of the 15 countries with their total economic output: the debt is equal to about 58% of their aggregate GNP. In contrast, the $200-billion foreign debt of the U.S., though worrisome to some economists, amounts to only about 5% of GNP. With so much of their GNP matched by foreign debt, Baker's 15 are naturally applying a lot of their output to interest: an average 7.3% of GNP, an enormous proportion to be shipping out of the country for this purpose. Were the U.S. shipping out an equivalent portion of its GNP, the dollars winging away would be $280 billion annually.

Fast growth in GNP and exports in the 15 countries, combined with minimum growth in debt and interest, would begin to chip away at the problem. This is the remedy Baker has in mind. But the 15 countries have no history of such combinations and certainly weren't verging on any in the past few years of improvements in trade surpluses. Too much of the gain came from cuts in imports, not growth in exports. Debt-to-exports ratios have actually risen since 1982 and interest-to-exports ratios haven't fallen, despite a helpful decline in dollar interest rates.

Endemic problems block economic progress. Rapid population growth—2½% annually in Mexico and Brazil—drags at growth in per capita GNP and keeps living standards depressed. Flight capital erodes the countries' productive base and capsulizes the ab-

BAKER'S PLAN HAS A PECK OF PRACTICAL PROBLEMS

■ Treasury Secretary James Baker envisions a three-pronged attack on the problems of 15 debt-laden developing countries. On one front he wants the debtor countries to make structural changes in their economies that will increase growth, produce sound balance-of-payments positions, and cut inflation. The countries are supposed to strengthen their private sectors and reduce budget deficits, put in supply-side programs such as tax reductions, liberalize trade, and promote foreign investment. Such policies, Baker says, will build confidence, encouraging domestic savings and stopping the flight of capital.

If the debtors buckle down to those prescribed changes, lenders open Fronts 2 and 3: commercial banks around the world grant the countries about $20 billion of new loans over the next three years; and the so-called multilateral development banks—the World Bank, the Inter-American Development Bank, and others—supply another $20 billion. Lending would continue case by case, with each country's loans negotiated separately.

Baker wants to see the World Bank play a major role in making good things happen. In recent years it has begun making what it calls "policy-based loans," which aim at Baker-like structural changes. For example, the Bank finances certain imports for countries willing to knock down trade barriers that would have kept those imports out. In almost all its loans it operates with carrot and stick, doling out money only as borrowers make headway. Baker wants the Bank to prod the 15 countries.

But behind the facade of this plan are endless complications that may scuttle it:

▶ Baker's structural changes add up to political dynamite and are impossible to put into effect quickly, if at all. The Reagan Administration has campaigned for such changes before and has got so little that Baker is making another pass at the well.

▶ Lining up the banks will be an organizational nightmare. For the plan even to get started, some 700 banks in 50 nations have to commit to lend $20 billion, providing those structural changes get made. In percentage terms the money asked is not big, amounting to only 7.3% of the banks' outstanding loans to the 15 countries, or an annual increase of about 2.4%. The U.S. money center banks can see a compelling reason to put that up: the investment promises to keep interest payments on existing loans flowing in. Also, as Baker has said, the big banks "have an ox in the ditch." They are looking for any way to get that fellow out.

But U.S. regional banks have reason to balk. Many have written down their foreign loans by a lot or sold loans to eliminate their exposure to a given country. Suppose a regional has largely written down its Brazilian loans and is out of Argentina entirely. Is it now to get back into Argentina by joining in the $20-billion commitment? Whoa. As a banker bitingly says, "This is not a new-business effort." Yet the cooperation of the regionals is essential to Baker's plan because the money center banks aren't ready to sign on by themselves. Were they to do that and be called on for new loans, part of the money would flow back to the regionals as interest on old loans.

▶ The World Bank is an imponderable: conservative, methodical, bureaucratic, a big borrower in the financial markets and therefore superprotective of its credit rating (AAA). In its 1985 fiscal year, a period of desperate need for many countries, it did not commit all the money it had expected to, partly because so few countries met its standards of creditworthiness.

In recent congressional hearings, Baker has conceded that his plan will be difficult to execute and uncertain in results. But, he says, "we do not see any alternative to an approach of this nature." In other words, count this as a last-ditch effort.

A Baker's Dozen Plus Two

For U.S. banks Latin America is the zone of pain. But Baker wanted support for his plan from foreign banks with problem loans concentrated elsewhere, so his list of troubled debtors has geographical spread. Variable interest rates apply to more than half the debt, which means the interest burden can swing sharply. Interest figures show what the countries owed in 1985—but some, such as Peru and Bolivia, didn't pay in full.

COUNTRY	FOREIGN DEBT	1985 INTEREST		DEBT OWED TO U.S. BANKS
	in billions	in billions	estimated % of 1985 GNP	in billions
Brazil	$103.5	$11.8	5.8%	$23.8
Mexico	$97.7	$10.0	6.3%	$25.8
Argentina	$50.8	$5.1	7.9%	$8.1
Venezuela	$32.6	$4.1	8.1%	$10.6
Philippines	$27.4	$2.1	6.2%	$5.5
Chile	$21.9	$2.1	12.9%	$6.6
Yugoslavia	$20.0	$1.7	3.6%	$2.4
Nigeria	$18.0	$1.8	1.9%	$1.5
Morocco	$14.4	$1.0	8.2%	$0.9
Peru	$13.9	$1.3	10.8%	$2.1
Colombia	$13.9	$1.3	3.3%	$2.6
Ecuador	$7.9	$0.7	6.0%	$2.2
Ivory Coast	$6.3	$0.6	8.7%	$0.5
Uruguay	$4.9	$0.5	9.8%	$1.0
Bolivia	$4.2	$0.4	10.0%	$0.2
TOTAL	$437.4	$44.5	Average 7.3%	$93.8

surdity of the debt crisis: even while international banks lend capital to the debtor nations, their citizens spirit billions cross-border and into the banks' private banking departments (see following article).

The ultimate curse for the poor countries is that they are swept along by whatever worldwide economic ill winds happen to blow. Rising interest rates? They're poisonous. Recessions in the industrialized countries? That means reduced exports for the developing countries. Protectionism? It would strangle exports and is a dire threat of the moment. The rise of protectionism frames the core problem of trade surpluses: not all countries can run them at once.

The whole cobwebby mess has produced a lot of pessimists who hoot at the idea of "a temporary liquidity problem," solvable if we all just rope ourselves together and climb that mountain. Lately, moreover, some members of the team have suggested they'd just as soon not climb. In September at the United Nations two new presidents, José Sarney of Brazil and Alan García Pérez of Peru, gave speeches about the debt problem that rose above run-of-the-mill rhetoric. Sarney described his country and its neighbors as crushed by their foreign debt—$103.5 billion in Brazil's case—and warned that policies aimed solely at generating trade surpluses to pay interest were intolerable. The sacrifices asked, he asserted, threatened Latin America's democracies.

García's speech got rapt attention because he has put himself on the leading edge of the debt problem. In July, with Peru already many months in arrears on its debt of $13.9 billion, García announced formally that the debt would not be serviced as scheduled. Instead, he said, 10% of Peru's export income would henceforth be assigned to interest and repayments. This unusual approach to tithing looks as if it will this year produce about $340 million for debt service, against a total interest bill of $1.3 billion, not to mention billions more up for repayment. García sounds as if none of the $340 million will go to the banks. Instead, priority is to be given to the World Bank and other official creditors. These lenders get preference because, unlike the banks, they have always insisted on honest-to-goodness repayments as a condition of extending further loans.

García's manifesto forced the U.S. Inter-Agency Country Exposure Review Committee, a body of banking supervisors that sets rules on how foreign loans should be valued, to declare most of Peru's loans "value-impaired." That classification requires the banks to set up reserves against the affected Peruvian loans, as they have been required to do also for certain loans to Bolivia, Liberia, Nicaragua, Poland, Sudan, and Zaire. The committee ordained that the minimum reserve for Peru be 15% of the face value of the loans. No logic explains the 15%, and committee members won't explain. Certainly García has not sounded as if the loans were still 85% good, nor would banks be able to sell their Peruvian loans for anything like 85 cents on the dollar (though you can certainly bet they'd jump at the chance). The 15% is just the committee's way of rumbaing around this problem. Next year, if its past habits are a clue, the committee may decree another 15% or so, and on from there.

> The prospect is a queue of slow-pay, low-pay, no-pay countries serving as a constant reminder that the banks' loans are not worth their stated value on the books.

The Peruvian events illustrate a pervasive problem about cross-border borrowers: in the end they will pay only what they want to pay. Their opinions about how much is fair to pay may change as generations succeed generations and as political leaders come and go. In some cases, leaders will surely make political capital out of *not* paying.

Bankers have said in the past that the exports of recalcitrant borrowers will be seized and that their ability to import essentials, such as medicine, will largely disappear. No such blows seem at the moment to be falling on Peru, though perhaps the bankers are delaying retribution in hopes that García can be brought around to reasonableness. Meanwhile, Baker put Peru on his list of 15, as if to say, "Come home and all will be forgiven."

AS MANY schoolchildren learned, Finland kept paying its World War I debts to the U.S. after all other countries stopped. In Baker's list there may be a Finland or two. The surer prospect, however, is a queue of slow-pay, low-pay, no-pay countries serving as a constant reminder that the banks' loans are not worth their stated value on the books.

The main question for the banks is not whether their loans will be written down, but how that will be accomplished. The banks seem to have a choice: keeping up the pressure on the debtors or becoming more conciliatory. If the banks keep bearing down, repudiations seem sure to cripple the loans—Peru-style repudiations, if no other. Alternatively, if the bankers were willing to drop the round-tripping charade, they could cap their losses and also begin to bargain with debtors, ratcheting down the debt to levels the countries can more likely handle. Concessional interest rates could have the same effect. Various public figures, such as Federal Reserve Vice Chairman Preston Martin and economist Allan Meltzer, have proposed that the banks exchange their debt for equity interests in Third World enterprises, such as utilities. Some of that could work.

A conciliatory approach of whatever kind might leave the banks salvaging more of their debt than they would by playing hardball. They could, for example, cut a deal that required some of the debtors to pay only half as much interest. Such a reduction would leave certain large debtors with debt-to-exports ratios of 2 to 1, which might be manageable. But banks still couldn't be sure that the debtors would honor the deal. Ultimately, they must always come back to their inability to force sovereign states to pay.

In all scenarios, the banks' interest revenues would drop and so would profits. Stockholders' equity would also sink. But these events, though sickening for managers and shareholders, would not in themselves threaten the banking system. A crisis would occur only if depositors interpreted these financial lurches as a reason to withdraw their money from the affected banks. The Fed, it would seem, could prevent that from happening by stating that deposits in all the affected banks are good, even those above the $100,000 level guaranteed by the FDIC. The guarantee has been implicitly in place for large banks since Continental Illinois almost went under, at which point the FDIC assured all depositors they would suffer no loss.

The Fed could conceivably take still another plunge at this problem. To preserve the illusion that the banks are left with sufficient equity capital, the Fed might decree that the stricken loans be left on the books at a relatively high value, or perhaps be written down slowly, over many years. That solution would be unorthodox, but we are not talking here about a minor-league problem. We are considering the best way for the banking system to extricate itself from deep trouble that never should have developed. F

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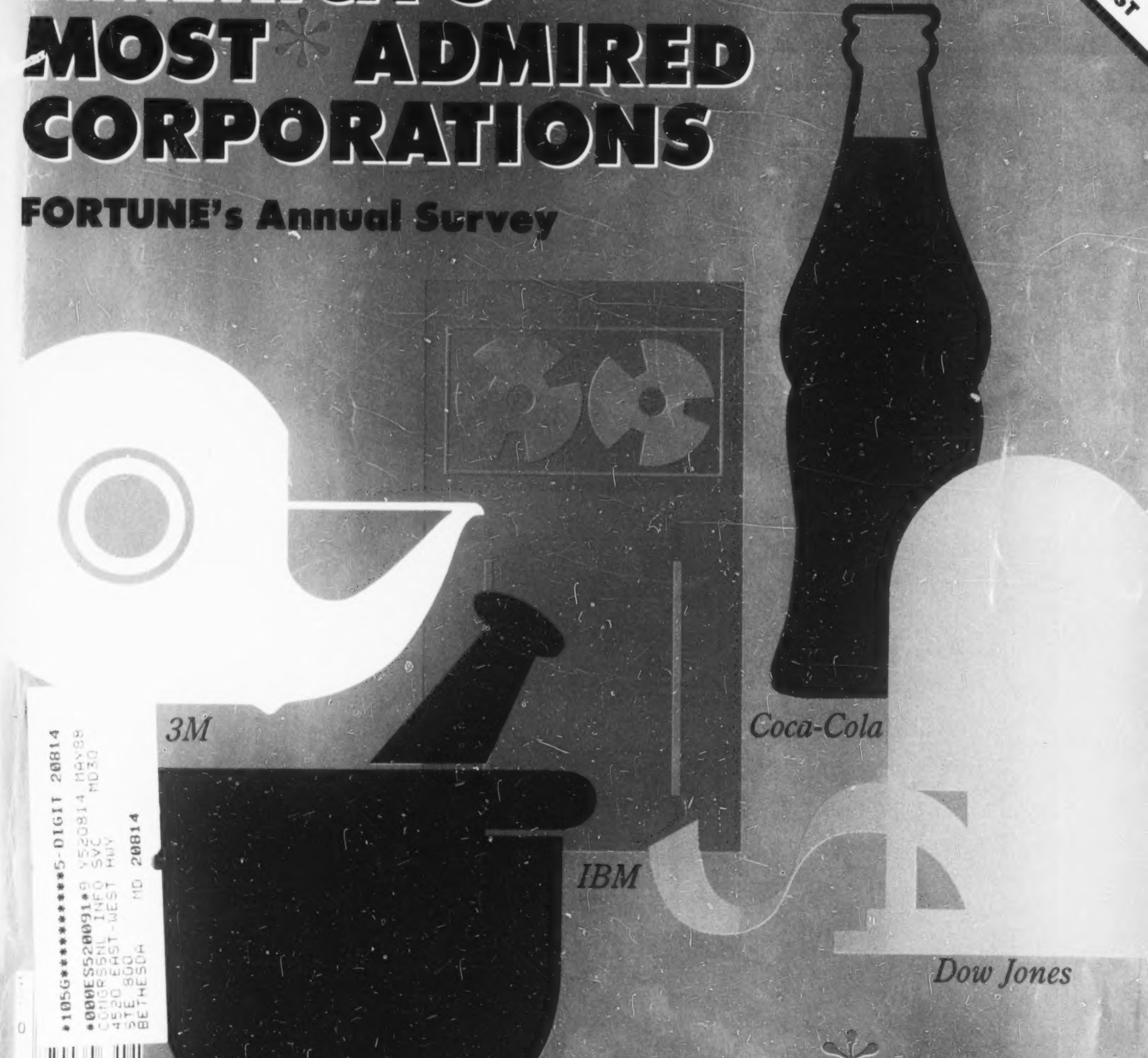
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NEWS/TRENDS

The Colossus of Conglomerates Moves Away From Smokestacks by Buying RCA

JONATHAN LEVIN—OUTLINE

Clinching the deal: from left, Bradshaw, Welch, and Frederick

■ **General Electric**'s proposed acquisition of **RCA** for $6.28 billion—the largest non-oil merger ever—unites two companies that have rebounded strongly after several disappointing years. Thornton Bradshaw, 68, became chairman of RCA in 1981, a year in which the corporation lost $27.2 million. NBC, its broadcasting network, was dead last in the television ratings. Today NBC is the top-rated network. RCA's 1984 profit was $341 million, and with the GE offer of $66.50 a share, RCA's stock price has tripled during Bradshaw's tenure. For GE's Jack Welch, 50, the merger is a milestone in a long campaign to revamp his company.

The reunion of GE and RCA—GE was among a consortium of companies that started RCA in 1919 and pulled out in 1933 after a federal court ruling—creates a $38-billion-a-year giant that would rank seventh on the FORTUNE 500, just behind IBM. Both are defense contractors; both have interests in communications and electronics. But there is surprisingly little head-to-head competition between the two. "They fit beautifully," says Mark Hassenberg, an analyst with the Wall Street firm of Donaldson Lufkin & Jenrette. "It's amazing that there is so little overlap. They complement each other, rather than oppose. In defense, for example, GE makes radar and jet engines, while RCA focuses on communications and electronics." GE may have picked up a bargain. Wall Street estimates of RCA's real worth range anywhere from $70 to $90 a share.

The acquisition is the broadest but certainly not the last brushstroke on the corporate redesign that Welch began when he became chief executive in 1981. Under his stewardship GE's revenues have grown slowly, but earnings have increased nearly 11% a year, and return on equity has held steady at about 18%, well above the industry average. A tough-minded, sometimes controversial manager, Welch has trimmed staff, eliminated layers of management, shut down unproductive factories, and spent $2.5 billion to automate the plants that remained.

Above all Welch has moved the company away from smokestack manufacturing and into services and high-technology industries. Since 1981, Welch has sold 150 of GE's operations for a total of $5 billion. The biggest chunk: Utah International, a mining business he peddled to Broken Hill Proprietary of Australia for $2.4 billion.

Welch will probably run RCA much as he has GE—cutting costs, streamlining management, moving out of low-growth businesses. Coincidentally, he will have a reunion with Robert Frederick. He beat out Frederick for the top job at GE, and his old colleague left to become president of RCA and Bradshaw's possible heir apparent. Welch is unlikely to tinker with NBC's news and entertainment divisions, though he will want to know why the industry's highest ratings translate into its lowest profits.

Despite its size, the deal faces few hurdles in Washington. The Federal Communications Commission is unlikely to balk at transferring NBC's television licenses, and will probably even allow GE to retain its television station in Denver; it's the NBC affiliate in the area. Nor should there be any antitrust problems. Either the Justice Department or the Federal Trade Commission must approve the merger, but the Reagan Administration judges prospective mergers less on size than on the merged company's ability to compete, particularly in international markets. On that point, Welch has been careful to emphasize that the new, expanded GE would be better able to knock heads with the likes of Japan's Matsushita and West Germany's Siemens. Said he: "The strength we gain from

Growing Through Mega-Mergers

These are the five largest U.S. corporate combinations in which the smaller partner had at least $8 billion in annual sales. The combined revenue figures are for the latest four quarters.

TRANSACTION	PRICE in billions	COMBINED REVENUES in billions
Texaco acquires Getty (1984)	$10.1	$46.6
Chevron acquires Gulf (1984)	$13.2	$38.8
GE acquires RCA (pending)	$6.3	$37.5
Du Pont acquires Conoco (1981)	$7.2	$34.2
Philip Morris acquires General Foods (1985)	$5.6	$19.2

a relatively invulnerable position in broadcasting and some other areas will enable us to be a stronger global competitor."

Trashing junk bonds

■ Even if a proposed new rule by the Federal Reserve were already in effect, the Fed wouldn't be able to lay a glove on General Electric's purchase of RCA for $6.28 billion in cash. But after New Year's Day, deals might fall through if financed like many corporate takeovers in recent years—by low-rated junk bonds, issued by shell corporations and backed by the target company's stock. In a close vote the Fed proposed that in such transactions the target company's stock secure no more than 50% of the purchase price.

The proposal is a new interpretation of the old restrictions on buying stocks on margin. In force since 1934, the margin limitation was designed to curb speculative binges on the stock market. In its new guise it is widely interpreted as an attempt to control the vast amount of debt accumulated during the current merger mania—debt that Fed Chairman Paul A. Volcker finds incompatible with long-term economic and financial stability. **Drexel Burnham Lambert**, the New York-based brokerage that dominates the huge junk-bond market ($15 billion so far this year), took issue with the ruling. Said Frederick H. Joseph, Drexel's C.E.O.: "There is no evidence that these financings [junk bonds] are harmful to the financial system."

The new limitations could take the leverage out of some leveraged takeovers and give worried C.E.O.s a little peace of mind. Corporate raiders like T. Boone Pickens and Carl Icahn may find it more difficult to finance their campaigns. David-size companies will be less likely to swallow up industrial Goliaths. But the ruling limits the way in which takeovers are financed, not takeovers themselves. Acquiring companies may have to put their own credit on the line to raise cash, or they may become more creative. "There are a lot of bright, imaginative people in this business," says Roger Miller, managing director of Salomon Brothers' mergers and acquisitions department. "They will immediately go into a reactive mode and find other ways of doing things."

EDITOR *John Nielsen*
REPORTER *H. John Steinbreder*

Hungry Britons

■ Merger mania has swept through Britain too, and never has the pace been as frenetic as during the first few days of December. In a rush:

The **Argyll Group** (retailing) offered $2.8 billion for **Distillers Co.**, the world's largest producer of Scotch whisky (Johnnie Walker, Dewar's); **Imperial Group** (tobacco, brewing) announced it would merge with **United Biscuits** (Keebler cookies) in a deal valued at $1.94 billion; **Habitat-Mothercare** (retailing) bought out **British Home Stores** (also retailing) for $2.2 billion; British **General Electric Co.** (electronics) bid $1.8 billion for **Plessey Co.** (telecommunications, defense); Australia's **Elders IXL** (wool processing) made a $2.7-billion offer for **Allied-Lyons** (brewing, food); **Hanson Trust** (a conglomerate) made a hostile bid of $2.8 billion for Imperial Group (yes, the same Imperial Group that had just announced an amicable marriage with United Biscuits).

Before 1985 Britain had never seen a merger offer above $1.5 billion, and hostile takeovers were as rare as cold beer. Suddenly six of the biggest deals in history were announced within days of each other. Moreover, four were openly hostile. Of the remaining two only Habitat/British Home Stores was entirely voluntary. The Imperial/United Biscuit merger was a shotgun affair prompted by fears—well founded, as it turned out—of bids from unfriendly quarters.

Security analysts attribute the surge to an abundance of credit and a new activism among Britain's shareholders. "Paper values of companies have increased with the bull market of the past five years," says Nicholas Jones, a corporate finance director with the merchant bank J. Henry Schroeder Wagg in London. "And so has the concern of investors over management. The institutional investor is more prepared to back a good manager, even if his firm has smaller capitalization, if he makes a bid for a larger, more complacent company." As Jones sees it, hostile takeovers will continue in Britain—though not at the dizzy pace of early December.

ALAIN MOEVAN—GAMMA/LIAISON

Saudi Arabia's Ahmed Zaki Yamani talks oil with Indonesia's Subroto.

Texaco loses again

■ A Texas state judge upheld a jury verdict requiring **Texaco** to pay $10.53 billion plus interest to **Pennzoil** for disrupting Pennzoil's agreement in principle to acquire 43% of **Getty Oil.** For now at least, Texaco does not have to post a $12-billion bond, a provision of Texas law that could have thrown the company into receivership. Still, news of the judge's ruling sent Texaco stock tumbling again. (See Personal Investing.)

OPEC circles wagons

■ Riddled by dissension and staggered by a long-term slide in oil prices, OPEC has apparently found unity by standing its traditional policy on its head. Meeting in Geneva, oil ministers in the 13-nation cartel decided they would no longer defend oil prices by curtailing production. Instead they decided to protect OPEC's market share—down from half the world market a decade ago to under one-third today—thereby risking a price war with non-OPEC producers

AMERICA'S MOST ADMIRED CORPORATIONS

IBM remains the most admired big company. Coca-Cola slips less than you might expect. Some big new names, including BankAmerica, join the list of least admired corporations. International Harvester and Eastern Air Lines finally get some respect.

■ *by Cynthia Hutton*

COMPANIES come and go in the ranks of the most admired U.S. corporations, but IBM marches steadily onward in the vanguard. It is No. 1 for the fourth year in FORTUNE's annual survey of corporate reputations. Bringing up the rear as the least admired of 292 companies ranked is Financial Corp. of America, a diversified financial company.

The survey covers the largest companies in 31 industry groups, six more groups than were surveyed last year. Just behind IBM, five companies make repeat appearances among the most admired. Coca-Cola kept a place among the top ten, despite the drubbing its reputation for astuteness took after it first reformulated Coke to give it a new taste and then was forced to bring back the old formula, now dubbed Coca-Cola Classic. Other repeaters: Minnesota Mining & Manufacturing, which replaced Coca-Cola as the second-most-admired company, Dow Jones, Merck, and Boeing. The rest of the top ten this year are new. They include Rubbermaid, the smallest company ever to rank that high (1984 sales: $566 million); Exxon, the world's largest industrial company (1984 sales: $91 billion); J.P. Morgan, the parent of Morgan Guaranty Trust Co. of New York; and Procter & Gamble.

P&G is new to the survey as well as to the top ten; its category, soaps and cosmetics, is one of the industry groups added this year. The four companies that appeared among the most admired last year but failed to keep their places this year did not drop far. They are Hewlett-Packard (No. 13), Anheuser-Busch (No. 11), General Electric (No. 17), and Eastman Kodak (tied with R.J. Reynolds Industries as No. 18).

Among the least admired companies, the repeaters in addition to Financial Corp. of America are Pan Am, American Motors, Manville, and Crown Zellerbach, back after a two-year absence. This is the fourth year in a row for American Motors and Pan Am, the third for Manville, and the second for Financial Corp. Joining these companies at the bottom of the list are Amax, BankAmerica, Bethlehem Steel, Control Data, and LTV.

Of the six companies that were on the least admired list last year but are not this year, two made it out by increasing their scores. Eastern Air Lines, helped by improved earnings in the first six months, took a short hop and landed 12th from the bottom at No. 281. International Harvester, No. 277, drove up ten places and is now 16th from the bottom, after selling its troubled farm-equipment division to Tenneco and concentrating on trucks and diesel engines. Three of last year's least admired companies—Continental Illinois, which was at the bottom of the list, Asarco, and TWA—disappeared from the survey because they are no longer among the largest companies in their industries. Pabst Brewing was taken private.

Once again this year, profits provide the surest path to respect. The top ten's median return on shareholders' equity for 1984 was 20%, compared with 13.5% for the FORTUNE 500. At the opposite end of the list, five of the least admired lost money in 1984, and the median return on equity for the remaining five was only 6.8%. None of the top ten has had an annual loss in over 35 years.

Over the past ten years the least admired group's median total return to investors—dividends plus the stock's price appreciation—was 4.6%, well below the 18.7% median for the FORTUNE 500. Even the top ten's ten-year median total return to investors, 14.9%, failed to come up to the 500's median. But the story is different when 1984 alone is considered. Last year the top group's median total return to investors was 11.5%, well above the FORTUNE 500's median of minus 0.75%. The bottom group's median return was dismal: minus 39.8%.

In the past FORTUNE's survey covered only industries with at least ten companies ranked in the FORTUNE 500 and FORTUNE Service 500 directories of U.S. industrial and non-industrial corporations. This year, for the first time, every industry group comprising four or more companies is surveyed. The new industries, in addition to soaps and cosmetics: mining and crude-oil production; toys, sporting goods, and musical instruments; shipbuilding, railroad and transportation equipment; textiles and vinyl flooring; and tobacco. FORTUNE bases its industry groups on categories established by the U.S. Office of Management and Budget. Only three OMB categories are not included in the survey of corporate reputations. The missing categories cover too few companies: leather (no companies in a FORTUNE directory); jewelry, silverware (one company); and furniture (two companies).

To rank corporate reputations, FORTUNE polled 8,000 executives, outside directors, and financial analysts. The response was

AT THE TOP AND BOTTOM OF THE 292 COMPANIES

The most admired

IBM remains the most admired large U.S. corporation, though its score for eight attributes is down from last year's 8.44. Coca-Cola's score, 8.34 last year, dropped sharply.

RANK	COMPANY	INDUSTRY GROUP	SCORE
1	**IBM**	Office equipment, computers	**8.31**
2	**3M**	Precision instruments	**8.12**
3	**Dow Jones**	Publishing, printing	**8.07**
4	**Coca-Cola**	Beverages	**7.98**
5	**Merck**	Pharmaceuticals	**7.91**
6	**Boeing**	Aerospace	**7.90**
7	**Rubbermaid**	Rubber, plastic products	**7.80**
8	**Procter & Gamble**	Soaps, cosmetics	**7.79**
9	**Exxon**	Petroleum refining	**7.72**
10	**J.P. Morgan**	Commercial banking	**7.71**

The least admired

Financial Corp. of America is the least admired of 292 companies. New to the least admired list are LTV, Control Data, Amax, BankAmerica, and Bethlehem Steel.

RANK	COMPANY	INDUSTRY GROUP	SCORE
292	**Financial Corp. of America**	Diversified financial	**3.23**
291	**LTV**	Metal manufacturing	**3.66**
290	**Pan Am**	Transportation	**3.71**
289	**American Motors**	Motor vehicles and parts	**3.75**
288	**Manville**	Glass, building materials	**3.79**
287	**Control Data**	Office equipment, computers	**3.89**
286	**Amax**	Mining, crude-oil production	**3.90**
285	**BankAmerica**	Commercial banking	**4.09**
284	**Crown Zellerbach**	Forest products	**4.23**
283	**Bethlehem Steel**	Metal manufacturing	**4.25**

good: about 50%. Those surveyed were asked to rate the ten largest companies in their own industry (or, for analysts, the industry they follow) on eight key attributes of reputation: quality of management; quality of products or services; innovativeness; long-term investment value; financial soundness; ability to attract, develop, and keep talented people; community and environmental responsibility; and use of corporate assets. Ratings are on a scale of 0 (poor) to 10 (excellent).

The rankings on the following pages show how each company is regarded by those most familiar with the industry to which it is assigned. Companies are assigned to industry groups according to the business that contributed most to 1984 sales (or assets, for certain industries). Some companies feel that they have been put in the wrong categories. Becton Dickinson, which manufactures surgical, laboratory, and diagnostic products, believes it should have been rated among pharmaceutical companies, instead of as a precision-instruments company. While the survey was being made, Gulf & Western sold the businesses that had put it in the apparel group; its remaining operations would probably make G&W part of the diversified services group, which it has regarded as its natural home right along.

The ten companies that had the largest point changes in their rankings from last year, all declines, include four that fell to the least admired list, BankAmerica, Control Data, Crown Zellerbach, and LTV. Union Carbide and Wang Laboratories also had big point losses. Before the Bhopal disaster, when a gas leak at a Union Carbide plant in India killed more than 2,000 people, the company ranked in the top half of its industry group for community and environmental responsibility. In that respect it is now near the bottom among the 292 companies; only Financial Corp. of America and Manville rank lower. Wang's sin was to overestimate demand for word processors and computers; earnings fell sharply, and so did the stock price, from $29.25 a share in January to under $20 a share in November. Of the other point losers, three—Phillips Petroleum, Beatrice, and Crown Zellerbach—were involved in messy takeover battles. J.C. Penney is spending heavily on remodeling stores to attract higher-income customers.

In remaining the most admired company, IBM scored slightly lower than last year—8.31 vs. 8.44—but beat all comers on five of the attributes of reputation, one more than last year. IBM received the highest score awarded a company on any attribute, 9.4, for financial soundness. Though forced to kill the PCjr, a home computer that it had expected to be a huge success, IBM scores 9.19 for quality of management, the second-highest score awarded for any attribute. IBM also ranks first for long-term investment value, use of corporate assets, and ability to attract, develop, and keep talented people. IBM's biggest decline in score was for innovativeness; it dropped from No. 31 last year to No. 78 this year.

3M ranks among the three most admired companies for wise use of corporate assets, community and environmental responsibility, and innovativeness. Innovation is crucial for 3M, which aims to continue generating at least 25% of sales each year from products introduced in the previous five years. To meet that goal, says Chairman Lewis W. Lehr, "there has to be a culture, an environment, for innovativeness." He adds that management must be tolerant of errors. Says Lehr: "We try to say around here, 'If you aren't making errors, you probably aren't doing anything.' "

Dow Jones, No. 3 for the second time, scores highest of the 292 companies for quality of products and services, and third for both long-term investment value and financial soundness. Dow Jones, publisher of the *Wall Street Journal*, had the highest 1984 return on equity of the most admired group, 25.5%.

In its 100th year, Coca-Cola drops to No. 10 overall for quality of products; last year it was No. 3 for this attribute, behind only Dow Jones and Boeing. For quality of management, Coca-Cola fell from No. 4 to No. 41. Ranked behind Anheuser-Busch in the beverage group for management last year, it now ranks behind PepsiCo as well. Coca-Cola's highest ranking was for value as a long-term investment. Here it placed No. 2 behind IBM. "It's obvious that they did the wrong thing" in trying to change Coke, says Emanuel Goldman, a security analyst with Montgomery Securities, a San Francisco brokerage firm. "The thing they did right was to make the change back very quickly." Helped by old Coke and wider distribution of the new Cherry Coke, Coca-Cola's soft-drink volume in the U.S. increased eight percentage points in the third quarter of 1985.

Merck, No. 10 last year, is No. 5 this year among the most admired. In its industry group Merck ranked No. 2 for quality of management, behind Johnson & Johnson, and No. 1 for wise use of corporate assets. At midyear P. Roy Vagelos, a physician and biochemist who directed Merck's research from 1976 to 1984, was appointed C.E.O. Vagelos is the first scientist to head Merck. Ronald J. Stern of the First Boston investment banking firm calls him "a big asset, a recognized top researcher who is adjusting very well to the financial mentality."

Boeing, No. 7 last year among the most admired, ranks sixth this year, scoring second overall for product quality, despite the company's admission that it had improperly repaired a critical bulkhead on a Japan Air Lines 747 that crashed in August, killing 520 people. For management quality Boeing ranks third. It gained sharply for soundness of financial position, moving to No. 13 from No. 27 last year. Industry analysts expect business to boom for Boeing as airlines order planes again. For 1985, Boeing expected to deliver 201 new planes, an increase from a seven-year low of 146 in 1984. The company's shareholders have enjoyed an average annual return on investment of 36.9% over the past ten years, by far the highest for any of the most admired group.

RUBBERMAID ranks seventh overall, up from No. 12 last year. The company ranked in the top ten for three attributes: wise use of corporate assets, innovativeness, and quality of products and services. Says Jay H. Freedman, a security analyst at Kidder Peabody, a New York brokerage firm: "Rubbermaid is a well-managed company with the strongest brand name going." Freedman adds, "They're also exceptionally good at telling the world how good they are." Rubbermaid Chairman Stanley C. Gault likes to point out that Rubbermaid has introduced more than 500 new products in the past five years. His company's stock price has increased sixfold in the same period (from $5 a share in 1980 to a recent $32.50 a share).

Procter & Gamble is eighth among the most admired companies and takes first place in the soaps and cosmetics group on all eight attributes surveyed. It ranks among the top ten for three attributes: soundness of financial position; ability to attract, develop, and keep talented people; and community and environmental responsibility. (See box for Chief Executive John G. Smale's comments on these and other matters.) Shortly before FORTUNE's survey was taken, P&G reported that net profit fell 29% in the fiscal year that ended June 30. The company explains that it has introduced eight major products, an expensive process, in the past two years, and has spent heavily on them.

continued

EIGHT KEY ATTRIBUTES OF REPUTATION

Innovativeness

MOST ADMIRED	SCORE
Citicorp	8.66
Gannett	8.64
3M	8.33

LEAST ADMIRED	SCORE
Amax	3.76
Bethlehem Steel	3.82
BankAmerica	4.01

Ability to attract, develop, and keep talented people

MOST ADMIRED	SCORE
IBM	8.51
J.P. Morgan	8.21
Merck	8.14

LEAST ADMIRED	SCORE
Beatrice Cos.	2.79
American Motors	3.09
Financial Corp. of America	3.10

Quality of management

MOST ADMIRED	SCORE
IBM	9.19
J.P. Morgan	8.73
Boeing	8.46

LEAST ADMIRED	SCORE
BankAmerica	3.40
Control Data	3.41
Financial Corp. of America	3.57

Long-term investment value

MOST ADMIRED	SCORE
IBM	8.74
Coca-Cola	8.04
Dow Jones	7.90

LEAST ADMIRED	SCORE
American Motors	2.50
Financial Corp. of America	2.54
Control Data	2.62

Community and environmental responsibility

MOST ADMIRED	SCORE
Eastman Kodak	8.43
3M	7.92
Coca-Cola and Johnson & Johnson (tie)	7.88

LEAST ADMIRED	SCORE
Financial Corp. of America	3.40
Manville	3.61
Union Carbide	3.80

Quality of products or services

MOST ADMIRED	SCORE
Dow Jones	8.98
Boeing	8.65
Eastman Kodak	8.52

LEAST ADMIRED	SCORE
Financial Corp. of America	4.24
Pan Am	4.51
American Motors	4.82

Financial soundness

MOST ADMIRED	SCORE
IBM	9.40
Exxon	9.02
Dow Jones	8.90

LEAST ADMIRED	SCORE
Manville	1.90
Financial Corp. of America	2.03
LTV	2.14

Use of corporate assets

MOST ADMIRED	SCORE
IBM	8.27
3M	7.94
Amoco	7.78

LEAST ADMIRED	SCORE
Financial Corp. of America	2.59
Control Data	2.97
Amax	3.09

TWO C.E.O.s TALK ABOUT CORPORATE REPUTATIONS

■ *To interpret the results of the survey of corporate reputations, reporter Cynthia Hutton interviewed scores of financial analysts, directors, and company officials, including chief executives. Excerpts follow from interviews with the C.E.O.s of two industrial giants that have joined the survey's top tier of most admired companies for the first time. John G. Smale, 58, joined Procter & Gamble as an assistant brand manager in 1952. He became president in 1974 and chief executive in 1981. Clifton C. Garvin Jr., 64, chairman of Exxon since 1975, went to work for the company 38 years ago as a process engineer at a refinery in Louisiana.*

D GORTON

John G. Smale, Procter & Gamble

On how to find, get, and keep good people: The characteristics that we look for would perhaps be self-evident: intelligence, creativity, entrepreneurship, a desire to work in what's essentially a consumer products company. We think one of the reasons that we're attractive to people is our promotion-from-within policy. We don't go outside to hire people. We also put people to work right away. There's obviously a lot of on-the-job training and supervision and a kind of mothering.

On P&G's key strengths: I'd say people and then products. Any strong organization, whether it be a business or a university, has to have strong people. And that doesn't just happen.

On P&G's future: What we're doing now is what we've done in the past. We've entered a number of new product categories in the past three to five years and we're in still more because of recent acquisitions. In the late Fifties and early Sixties we were expanding into many new categories: paper and cake mix, peanut butter and coffee. There came a time when we consolidated our position in those categories and tried to achieve leadership. It took 25 years in peanut butter, but we got there. It took 12, 13 years in the tissue business. In fabric softeners we did it in a couple of years. Now we're doing the same thing. We're entering new categories of business that we think are relevant to our technology, and we'll be successful at it.

On Richardson-Vicks: [The acquisition] telescopes the time in which we will be able to achieve leadership in a lot of new categories. Richardson-Vicks is a leader in the cough and cold category. Oil of Olay is the leading facial moisturizer.

On the need to do right: I think another part of our advantage is an intangible thing, the principles that the company operates by, the fact that we try to do the right thing. It's important to our kind of people that they're comfortable with the character of the organization they're working with. So when we do something like withdraw Rely [a tampon linked by some medical studies to toxic shock syndrome] our people say they're concerned that it has a financial effect on the company, but they also say, "That fits with what I would expect this company to do."

Clifton C. Garvin Jr., Exxon

On Exxon's strengths: Exxon hasn't existed 104 years without having developed a lot of strengths. No. 1 is the people who are in this company. We have more than our fair share of good people. And particularly over the past five years, those people have done well. We also have the financial strength to weather difficult times. In the unsettled recent past of the oil industry, we have been able to adjust to the ups and downs of OPEC and crude-oil pricing.

On keeping good people: We recruit on college campuses for disciplines we need, and we've been able to encourage the concept of career employment. We have a sophisticated system of identifying good young people. Then we have a system of executive development that gives you a chance to perform in different parts of the business. I'm a prime example. I came out of the Virginia Polytechnic Institute and joined Exxon, and I'm going to retire with the company.

On a stock repurchase program Exxon started in 1983: It's been a deliberate program to enhance the value of our shares for stockholders. We make no commitment to continue the repurchase program. Each month we look at cash flow to be sure that there is capital for programs central to the company's future, that there are adequate dividend returns to the shareholders, and we decide whether to repurchase shares.

On Exxon's greatest challenges: One big challenge is to adapt to a market environment that suggests very little growth for petroleum products. The backdrop to that environment is that all the marginal crude-oil production is in the hands of the OPEC crew. So they, being the marginal supplier of oil, have the most to say about what the price of oil will be, and that has been a very unstable kind of situation in recent months. The investments that we have to make to discover oil take a long time to put in, and the returns are going to come years from now. Drafting a wise investment strategy is a real challenge. The non-OPEC world can still use all the new reserves of crude oil that can be found, and so there's a tremendous need to be successful in exploration efforts, particularly in those geographical basins that are not in OPEC's part of the world. We've got to be sure that we're part of that discovery of non-OPEC oil.

The survey was half completed before P&G pleased Wall Street by announcing plans to acquire Richardson-Vicks, and finished before P&G revealed that it is buying G.D. Searle's over-the-counter drug lines.

Exxon, No. 27 last year, jumps to No. 9 in this year's survey. It ranks second among the 292 companies for financial soundness and is first among its petroleum-refining peers for all but three of the eight attributes of reputation. In two of the three categories in which it fell short of perfection (management quality and wise use of assets) it is No. 2; in innovativeness it is No. 3. Exxon has been trimming operations across the board, which helped it to lead all big oil companies for return on equity in 1984 (19.2%). (For Chairman Clifton C. Garvin Jr.'s views on his company, see box.)

J.P. Morgan, the fifth-largest U.S. commercial bank holding company and the only one still rated triple-A by Standard & Poor's, ranks tenth among the most admired companies, up from No. 17 last year. It places No. 2 among the 292 companies for both quality of management and ability to attract, develop, and keep talented people, behind only IBM in both respects. For wise use of corporate assets it is No. 5; for value as a long-term investment, No. 6. J.P. Morgan's president, Robert V. Lindsay, says of Morgan's high overall ranking: "I'm particularly glad to see that reputation can be maintained and improved at a time when the banking industry and we ourselves are in a transition from what you might call the old days to the new days." Of his company's strategy, he says: "Opportunistic is a word that could be used. We're trying to spot the opportunities and run with them—conservatively, carefully."

At the bottom of the list, Financial Corp. of America, parent of American Savings & Loan Association, is ranked among the bottom three for every attribute but innovativeness, for which it placed 283rd out of the 292 companies. FCA lost $590.5 million in 1984, the most ever lost by a thrift. The company's new management, though still tarred with the old brush, reported a profit of $12.3 million in the June-September quarter. American S&L's portfolio is still 90% based on long-term fixed-rate loans, while 84% of the interest it pays is on short-term deposits and borrowings. American S&L is drawing no revenue on $1.8 billion in foreclosed property and other delinquent loans.

Two metal manufacturers—LTV, No. 291, and Bethlehem Steel, No. 283—are among the least admired. The industry received the survey's lowest median score for the eight attributes of reputation, 5.22. Since LTV acquired Republic Steel Corp. in 1984, stacking up enormous debt, LTV has not lost less than $19.5 million a quarter. LTV scored last in the metal manufacturing group for every attribute but innovativeness, where it placed ninth. Its lowest overall rating was 290 of 292 for soundness of financial position; only Manville and Financial Corp. of America were rated lower. Bethlehem, which has stuck with steel while other companies diversified, scored lowest for innovativeness, No. 291. Security analysts say LTV and Bethlehem's new managers are struggling with the aftermath of ancient misjudgments that led steel companies to maximize capacity and invest in marginal, high-cost plants.

Pan Am, No. 290, reported an operating loss in 1984 and ranks among the least admired companies for the fourth year. It ranks 291st for quality of services offered and tenth in the transportation group for every attribute. The company has lost $771 million since 1980 and faces another loss this year. The biggest surprise of the year was Pan Am's agreement to sell its Pacific routes to United for $750 million.

Biggest gainers

COMPANY	SCORE	CHANGE
Celanese	6.19	+.86
Sara Lee	7.02	+.67
Upjohn	6.81	+.61
Metropolitan Life	6.17	+.59
Eastern Air Lines	4.34	+.48
Martin Marietta	6.91	+.46
International Harvester	4.56	+.45
Ford Motor	7.14	+.42
Equitable Life Assurance	6.05	+.41
Exxon	7.72	+.41

Biggest losers

COMPANY	SCORE	CHANGE
Control Data	3.89	−1.61
LTV	3.66	−1.54
Wang Laboratories	5.62	−1.45
BankAmerica	4.09	−1.37
Union Carbide	4.37	−1.31
Phillips Petroleum	5.07	−1.08
B.F. Goodrich	4.98	−.91
Beatrice Cos.	4.36	−.90
Crown Zellerbach	4.23	−.89
J.C. Penney	5.91	−.87

Changes in Scores

Celanese, its earnings up sharply thanks to brisker sales and lower costs, scored the biggest gain in reputation over last year, while struggling Control Data had the biggest decline.

Also ranked in the bottom ten for the fourth year is American Motors, No. 289. Ranked last overall for value as a long-term investment, AMC also scored in the bottom three for quality of products and ability to attract, develop, and keep talented people. After a small profit in 1984 for the first time since 1979, AMC lost $118.6 million in the first nine months of 1985. AMC's Jeep will also face greater competition as Japanese and U.S. automakers bring out four-wheel-drive versions of their passenger cars. AMC hopes to get back on track by introducing a high-priced, exotic car in 1987 and two intermediates in 1987 and 1988.

MANVILLE, No. 288, in Chapter 11 since August 1982, hopes to emerge in about a year. Last August, Manville's board approved a plan to set up a trust of as much as $2.5 billion to settle some 17,000 asbestos-related health claims and 19,800 property-damage claims. The trust would be funded by at least half the company's stock, $847 million in cash and receivables, and perhaps 20% of future profits and 30% more stock. The former asbestos producer has switched to fiberglass and forest products, but ranks last overall for soundness of financial position and second to last for community and environmental responsibility.

Control Data, No. 287, the fourth-largest U.S. computer maker, with revenues of $5 billion in 1984, misjudged how fast disk-drive technology was moving and how the proliferation of personal computer work stations would shrink its computer services business. Control Data lost $270 million in the first nine months of 1985. The company's overall score dropped from 5.5 last year to 3.89. Control Data placed in the bottom three for quality of management, use of corporate assets, and value as a long-term investment.

A harsh market also battered Amax, No. 286, the world's largest producer of molybdenum and also a miner of coal, zinc, copper, nickel, tungsten, silver, and gold. About 65% of molybdenum and 60% of nickel goes to the slumping steel industry, and Amax has lost more than $1.4 billion since 1982. Metal prices are low and Amax is not known as a low-cost producer. Because of heavy debt—$1.3 billion in long-term debt—interest payments are high. Says Ronald Shorr, a security analyst with the New York brokerage firm of Bear Stearns, "They're working for the banks now." Part of Amax's debt is attributed to a splurge on acquisitions the company made in the 1970s. Amax ranks No. 290 of 292 for wise use of corporate assets. President Allen Born, who took office in June, will become chief executive in January. He has already begun selling assets. Says Born, "I didn't come to a sinking ship that I didn't think could be saved."

BankAmerica, No. 285, hit the least admired list for the first time, ranking at the very bottom overall for quality of management and 290th for innovativeness. Bank of America has had huge loan losses since 1980—over $3.5 billion—more than any other U.S. bank. While most money center banks showed robust results for the third quarter of 1985, BankAmerica had an operating loss of about $90 million. However, financial analysts say the chairman and president, who have been in place four years, are now catching up in electronic banking and in consolidating the California branch system.

CROWN ZELLERBACH, No. 284, has seen its reputation erode over a long period. Financial analyst John Maack at the San Francisco brokerage firm of S.G. Warburg Rowe & Pitman Akroyd says that since 1953 Crown Zellerbach shareholders have endured "a long history of failures" in an industry that is now hard pressed by overcapacity for certain types of paper, the strength of the dollar, and rising imports. The company had a nine-month net loss in 1985 of $43.9 million on sales of $2.3 billion. Now Sir James Goldsmith, having bought around 50% of its shares after a hard fight, is Crown Zellerbach's majority shareholder and new chairman. Some analysts think Goldsmith will sell off assets, as he did after acquiring Diamond International, a forest products company.

Companies—and managements—that want to be well thought of should be in a well-regarded business. But that isn't enough. As in the past, respondents to FORTUNE's survey point to quality of management and quality of products and services as by far the most important attributes in judging corporate reputations. A reputation can be quickly lost; just last year BankAmerica ranked above Manufacturers Hanover and Chase Manhattan in its industry group, and Control Data outshone Burroughs and Sperry. Rebuilding reputation is a slow process—but the painful climb of International Harvester and Eastern Air Lines out of the bottom ten companies in this survey demonstrates that it can be done.

HOW COMPANIES RANK IN 31 INDUSTRIES

Industry groups are based on U.S. Office of Management and Budget categories. Companies are assigned to industries according to the business that contributed most to 1984 sales (or assets, for certain industries).

Aerospace

Boeing, tops for all attributes except innovativeness, leads its industry again. Northrop is first for innovativeness.

RANK	LAST YEAR	COMPANY	SCORE
1	1	Boeing	7.90
2	3	Rockwell International	7.16
3	2	Lockheed	7.00
4	6	McDonnell Douglas	6.95
5	9	Martin Marietta	6.91
6	5	Signal Cos.[1]	6.74
7	7	Northrop	6.73[2]
7	4	United Technologies	6.73[2]
9	8	General Dynamics	6.35
10	–	Textron[3]	6.05

Apparel

Gulf & Western has sold its apparel operations. Arrow shirt maker Cluett Peabody is merging with West Point-Pepperell.

RANK	LAST YEAR	COMPANY	SCORE
1	1	VF	7.48
2	2	Hartmarx	7.24
3	4	Interco	6.28
4	6	Warnaco	6.14
5	7	Cluett Peabody	6.00[2]
5	3	Oxford Industries	6.00[2]
7	8	Gulf & Western Industries	5.89
8	–	Phillips-Van Heusen[4]	5.40
9	9	Kellwood	5.33
10	–	Palm Beach[4] [5]	4.93

[1] Acquired by Allied September 1985.
[2] Tie. Each scores higher than the other on four of eight attributes.
[3] Ranked No. 8 last year in the industrial and farm equipment category.
[4] Not ranked last year.
[5] Taken private December 1985.

Beverages

Coca-Cola kept its grip on first place in its industry group, despite a quickly reversed attempt to change Coke's formula.

RANK	LAST YEAR	COMPANY	SCORE
1	1	Coca-Cola	7.98
2	2	Anheuser-Busch	7.69
3	3	PepsiCo	7.39
4	5	General Cinema	6.83
5	4	MEI	6.33
6	7	Brown-Forman	6.16
7	6	Joseph E. Seagram & Sons	6.14
8	8	G. Heileman Brewing	5.98
9	9	Adolph Coors	5.94

Diversified financial

First Boston leads its group on six attributes. It was ninth for responsibility and second for financial soundness.

RANK	LAST YEAR	COMPANY	SCORE
1	1	First Boston	7.23
2	2	American Express	7.02
3	3	Merrill Lynch	6.53
4	4	Travelers Corp.	6.20
5	5	Aetna Life & Casualty	6.11
6	9	Cigna	5.91
7	6	Great Western Financial	5.90
8	8	H.F. Ahmanson	5.74
9	7	Federal Natl. Mortgage Assn.	5.51
10	10	Financial Corp. of America	3.23

Chemicals

Haunted by Bhopal, Union Carbide ranks 290th for community and environmental responsibility.

RANK	LAST YEAR	COMPANY	SCORE
1	1	Du Pont	7.27
2	3	Dow Chemical	6.76
3	—	Allied[1] [2]	6.35
4	4	Hercules	6.31
5	2	Monsanto	6.27
6	5	American Cyanamid	6.24
7	9	Celanese	6.19
8	—	FMC[1]	6.12
9	6	W.R. Grace	5.63
10	7	Union Carbide	4.37

Diversified services

RCA, praised for the revival of NBC and the sale of Hertz to United Airlines, won General Electric as a merger partner.

RANK	LAST YEAR	COMPANY	SCORE
1	1	Phibro-Salomon	7.00
2	2	Super Valu Stores	6.54
3	4	Fleming Cos.	6.31
4	5	McKesson	6.25
5	8	RCA	6.19
6	6	CBS	6.15
7	3	Halliburton	6.08
8	—	HNG/InterNorth[1] [3]	6.02
9	7	Fluor	5.65
10	9	Farmland Industries	5.43

Commercial banking

BankAmerica hit the bottom of its industry group. It ranks 292nd out of 292 companies for management quality.

RANK	LAST YEAR	COMPANY	SCORE
1	1	J.P. Morgan	7.71
2	2	Citicorp	7.24
3	4	Bankers Trust New York	6.80
4	3	Security Pacific	6.69
5	5	First Interstate Bancorp	5.96
6	6	Chemical New York	5.95
7	9	Chase Manhattan	5.44
8	8	Manufacturers Hanover	5.25
9	—	First Chicago[1]	4.66
10	7	BankAmerica	4.09

Electronics, appliances

AT&T scores best for quality and responsibility, Motorola for innovativeness. GE is first for all other attributes.

RANK	LAST YEAR	COMPANY	SCORE
1	1	General Electric	7.57
2	3	Emerson Electric	6.90
3	4	AT&T Technologies	6.81
4	2	Motorola	6.60
5	5	Raytheon	6.35
6	8	Westinghouse Electric	5.96
7	7	North American Philips	5.87
8	9	Litton Industries	5.65
9	6	Texas Instruments	5.46
10	10	ITT	5.05

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[1] Not ranked last year.
[2] Acquired Signal Cos. September 1985. New name Allied-Signal.
[3] Acquired Houston Natural Gas July 1985. New name HNG/InterNorth.

HOW COMPANIES RANK IN 31 INDUSTRIES

Glass, building materials

Asbestos-stricken Manville is far out of the running in this group. Financial analysts liked U.S. Gypsum best.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**Corning Glass Works**	**7.10**
2	2	**PPG Industries**	**6.93**
3	3	**Owens-Corning Fiberglas**	**6.53**
4	4	**Owens-Illinois**	**6.43**
5	5	**U.S. Gypsum**	**6.24**
6	6	**Norton**	**6.04**
7	8	**National Gypsum**	**6.01**
8	7	**Libbey-Owens-Ford**	**5.93**
9	9	**CertainTeed**	**5.33**
10	10	**Manville**	**3.79**

Food

Mergers and leveraged buyouts are changing the shape of the food industry. The latest: Beatrice is being taken private.

RANK	LAST YEAR	COMPANY	SCORE
1	3	**Nabisco Brands**[1]	**7.06**
2	6	**Sara Lee**[2]	**7.02**
3	4	**Dart & Kraft**	**6.86**[3]
3	1	**General Mills**	**6.86**[3]
5	2	**General Foods**[4]	**6.76**
6	5	**Ralston Purina**	**6.69**
7	9	**Archer Daniels Midland**	**6.17**
8	8	**Borden**	**6.01**
9	7	**CPC International**	**5.78**
10	10	**Beatrice Cos.**	**4.36**

Industrial and farm equipment

Cummins scored highest for only one attribute, community and environmental responsibility, but placed second for five.

RANK	LAST YEAR	COMPANY	SCORE
1	—	**Cummins Engine**[5]	**6.83**
2	2	**Deere**	**6.69**
3	3	**Teledyne**	**6.68**
4	6	**Caterpillar Tractor**	**6.33**
5	—	**Emhart**[5]	**6.21**
6	7	**Dresser Industries**	**6.14**
7	4	**Combustion Engineering**	**6.02**
8	9	**Ingersoll-Rand**	**5.94**
9	10	**Baker International**	**5.90**
10	—	**Colt Industries**[5]	**5.70**

Forest products

Paper towel and tissue maker James River stands first in its group for management quality and use of assets.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**Kimberly-Clark**	**7.38**
2	—	**James River Corp. of Virginia**[5]	**6.76**
3	4	**Mead**	**6.18**
4	5	**Scott Paper**	**6.16**
5	2	**Weyerhaeuser**	**5.90**
6	7	**Georgia-Pacific**	**5.86**
7	3	**Boise Cascade**	**5.83**
8	6	**Champion International**	**5.39**
9	8	**International Paper**	**4.96**
10	9	**Crown Zellerbach**	**4.23**

Life insurance

Long seen as a lumbering giant, Metropolitan Life bestirred itself to buy Century 21, a big real estate sales company.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**Northwestern Mutual**	**7.17**
2	2	**Prudential**	**6.58**
3	3	**Travelers**	**6.24**
4	4	**Teachers Insurance & Annuity**	**6.17**[6]
5	10	**Metropolitan Life**	**6.17**[6]
6	6	**Connecticut General Life**	**6.10**[7]
7	5	**John Hancock Mutual**	**6.10**[7]
8	9	**Equitable Life Assurance**	**6.05**
9	7	**Aetna Life**	**6.04**
10	8	**New York Life**	**5.94**

[1] Acquired by R.J. Reynolds September 1985.

[2] Formerly Consolidated Foods.

[3] Tie. Each scores higher than the other on four of eight attributes.

[4] Acquired by Philip Morris November 1985.

[5] Not ranked last year.

[6] Tie. Teachers Insurance & Annuity scores higher than Metropolitan Life on five of eight attributes.

[7] Tie. Connecticut General Life, wholly owned by Cigna, scores higher than John Hancock Mutual on five of eight attributes.

Metal manufacturing

Alcoa's winning score would be mediocre in most groups. LTV and Bethlehem are among the ten least admired companies.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**Alcoa**	6.35
2	2	**Reynolds Metals**	5.63
3	—	**Alumax**[1]	5.53
4	4	**Inland Steel**	5.37
5	—	**Marmon Group**[1]	5.28
6	5	**National Intergroup**	5.16
7	7	**Kaiser Aluminum & Chemical**	4.55
8	8	**Armco**	4.30
9	9	**Bethlehem Steel**	4.25
10	6	**LTV**	3.66

Motor vehicles and parts

General Motors ranks first for six attributes. Ford wins for product quality, Chrysler for innovativeness.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**General Motors**	7.62
2	4	**Ford Motor**	7.14
3	5	**Chrysler**	6.98
4	3	**Dana**	6.91
5	2	**TRW**	6.79
6	6	**Paccar**	6.35
7	—	**Borg-Warner**[1]	6.12
8	8	**Fruehauf**	5.68
9	10	**International Harvester**	4.56
10	9	**American Motors**	3.75

Metal products

Gillette rates highest except for management quality and investment value. On these, faucet maker Masco is first.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**Gillette**	7.19
2	2	**Masco**	6.85
3	4	**Stanley Works**	6.82
4	5	**Parker Hannifin**	6.78
5	3	**Ball**	6.72
6	7	**American Can**	6.29
7	8	**Crown Cork & Seal**	6.18
8	—	**Harsco**[1]	6.06
9	—	**CBI Industries**[1]	5.83
10	10	**Chromalloy American**	5.28

Office equipment, computers

IBM, scoring highest for six attributes, trails Hewlett-Packard and Digital for innovativeness. H-P wins for product quality.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**IBM**	8.31
2	2	**Hewlett-Packard**	7.67
3	4	**Digital Equipment**	6.97
4	5	**NCR**	5.94
5	3	**Wang Laboratories**	5.62
6	6	**Honeywell**	5.46
7	9	**Burroughs**	5.40
8	7	**Pitney Bowes**	5.22
9	10	**Sperry**	4.89
10	8	**Control Data**	3.89

Mining, crude-oil production

This industry group has one of the lowest median scores. Sohio ranks No. 1 on four attributes of reputation.

RANK	LAST YEAR[2]	COMPANY	SCORE
1		**Standard Oil (Ohio)**	6.24
2		**Mitchell Energy**	6.13
3		**Vulcan Materials**	6.11
4		**Freeport-McMoRan**	6.10
5		**International Minerals & Chemicals**	5.68[3]
5		**Louisiana Land & Exploration**	5.68[3]
7		**Occidental Petroleum**	5.62
8		**Westmoreland Coal**	5.16
9		**Inspiration Resources**	4.89
10		**Amax**	3.90

Petroleum refining

Blockbuster Exxon rates highest for five attributes. Amoco leads for management quality, innovativeness, and asset use.

RANK	LAST YEAR	COMPANY	SCORE
1	3	**Exxon**	7.72
2	1	**Amoco**[4]	7.63
3	4	**Atlantic Richfield**	6.75
4	5	**Chevron**	6.50
5	8	**Sun**	6.13
6	6	**Mobil**	6.00
7	—	**Tenneco**[1]	5.73
8	9	**Texaco**	5.47
9	7	**Phillips Petroleum**	5.07
10	10	**U.S. Steel**	4.95

[1] Not ranked last year.
[2] This industry was not surveyed last year.
[3] Tie. Each scores higher than the other on four of eight attributes.
[4] Formerly Standard Oil (Indiana).

HOW COMPANIES RANK IN 31 INDUSTRIES

Pharmaceuticals

Johnson & Johnson rates highest for management quality and responsibility, while Merck ranks first for the rest.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**Merck**	7.91
2	3	**Johnson & Johnson**	7.69
3	5	**Pfizer**	7.44
4	4	**Bristol-Myers**	7.29
5	2	**Abbott Laboratories**	7.16
6	7	**Eli Lilly**	7.03
7	6	**American Home Products**	6.88
8	9	**Upjohn**	6.81
9	8	**SmithKline Beckman**	6.48
10	10	**Warner-Lambert**	6.34

Precision instruments

Kodak leads for product quality and responsibility, while 3M takes first place for all other attributes.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**3M**	8.12
2	2	**Eastman Kodak**	7.52
3	3	**EG&G**	7.03
4	4	**Perkin-Elmer**	6.86
5	5	**Tektronix**	6.74
6	6	**Xerox**	6.55
7	9	**General Signal**	6.45
8	8	**Becton Dickinson**	6.41
9	7	**Polaroid**	6.16
10	10	**Lear Siegler**	5.74

Publishing, printing

Gannett rates second for innovativeness among the 292 companies, but tenth in its industry for product quality.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**Dow Jones**	8.07
2	4	**New York Times**	7.50[1]
3	3	**Gannett**	7.50[1]
4	2	**Time Inc.**	7.13
5	5	**R.R. Donnelley & Sons**	7.09
6	8	**Knight-Ridder Newspapers**	7.08
7	9	**Washington Post**	6.92
8	6	**Times Mirror**	6.86
9	7	**McGraw-Hill**	6.72
10	10	**Tribune**	6.46

Retailing

American Stores, which owns food and drug chains and purchased Jewel Cos. last year, climbs to No. 2 from No. 7.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**Sears Roebuck**	6.37
2	7	**American Stores**	6.22
3	4	**Kroger**	6.16
4	3	**Federated Department Stores**	6.06
5	5	**Safeway Stores**	6.03
6	2	**J.C. Penney**	5.91
7	9	**Lucky Stores**	5.73
8	6	**K mart**	5.59[2]
9	8	**Southland**	5.59[2]
10	10	**Household International**	5.17

Rubber and plastic products

Rubbermaid scores first for all attributes. Goodrich has been hit by the shrinkage of the replacement-tire market.

RANK	LAST YEAR	COMPANY	SCORE
1	1	**Rubbermaid**	7.80
2	2	**Goodyear Tire & Rubber**	7.43
3	—	**Carlisle**[3]	6.24
4	4	**Cooper Tire & Rubber**	5.77
5	3	**Armstrong Rubber**	5.65
6	6	**GenCorp**	5.60
7	8	**Dayco**	5.04
8	7	**Firestone Tire & Rubber**	5.02
9	10	**Uniroyal**[4]	4.99
10	5	**B.F. Goodrich**	4.98

Shipbuilding, railroad and transportation equipment

American Standard, most familiar as a plumbing supplier, makes braking and control equipment for mass transit.

RANK	LAST YEAR[5]	COMPANY	SCORE
1		**American Standard**	6.93
2		**Fleetwood Enterprises**	6.90
3		**Mack Trucks**	6.36
4		**Ogden**	6.16
5		**Coachmen Industries**	5.98
6		**Todd Shipyards**	5.94

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[1] Tie: New York Times scores higher than Gannett on five of eight attributes.
[2] Tie: K mart scores higher than Southland on five of eight attributes.
[3] Not ranked last year.
[4] Taken private September 1985.
[5] This industry was not surveyed last year.

Soaps, cosmetics

Procter & Gamble takes first for every attribute. Revlon tried to go private and has been taken over by Pantry Pride.

RANK	LAST YEAR[1]	COMPANY	SCORE
1		Procter & Gamble	7.79
2		International Flavors & Fragrances	6.66
3		Clorox	6.64
4		Lever Brothers	6.58
5		Economics Laboratory	6.16
6		Colgate-Palmolive	6.10
7		Chesebrough-Pond's	5.66
8		Avon Products	5.64
9		Revlon	5.59

Textiles, vinyl flooring

M. Lowenstein, No. 7 in this group, a maker of apparel fabrics, is being acquired by Springs Industries, No. 4.

RANK	LAST YEAR[1]	COMPANY	SCORE
1		Collins & Aikman	7.30
2		Armstrong World Industries	7.22
3		West Point-Pepperell	7.16
4		Springs Industries	6.67
5		Shaw Industries	6.60
6		Burlington Industries	6.06
7		M. Lowenstein	5.94
8		Fieldcrest Mills	5.56
9		J.P. Stevens	4.71
10		United Merchants & Mfrs.	4.64

Tobacco

Philip Morris is first for all attributes but investment value and use of assets, for which Reynolds is rated highest.

RANK	LAST YEAR[1]	COMPANY	SCORE
1		Philip Morris	7.63
2		R.J. Reynolds Industries	7.52
3		United States Tobacco	6.78
4		American Brands	6.31

Toys, sporting goods, musical instruments

Hasbro, maker of the G.I. Joe doll, ranks first for all attributes but innovativeness, for which Coleco is most admired.

RANK	LAST YEAR[1]	COMPANY	SCORE
1		Hasbro	7.49
2		Mattel	6.81
3		Kidde	6.35
4		Coleco Industries	5.74

Transportation

UPS ranks No. 1 for four attributes, including quality of services and financial soundness. Pan Am ranks last on all.

RANK	LAST YEAR	COMPANY	SCORE
1	1	United Parcel Service	7.27
2	2	Delta Air Lines	7.10
3	3	AMR (American Airlines)	6.98
4	7	Burlington Northern	6.67
5	—	Union Pacific[2]	6.60
6	6	UAL (United Airlines)	6.58
7	4	CSX	6.31
8	5	Santa Fe Southern Pacific	6.03
9	9[3]	Eastern Air Lines	4.34
10	9[3]	Pan Am	3.71

Utilities

Seven regional telephone companies spawned by the breakup in 1984 of the Bell System are the seven most admired utilities.

RANK	LAST YEAR	COMPANY	SCORE
1	—	Ameritech[2]	7.23
2	—	BellSouth[2]	7.18
3	—	Bell Atlantic[2]	7.17
4	—	Pacific Telesis Group[2]	7.04
5	—	US West[2]	7.01
6	—	Southwestern Bell[2]	6.98
7	—	Nynex[2]	6.80
8	5	Pacific Gas & Electric	6.46
9	8	Southern Co.	6.43
10	4	GTE	6.01

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[1] This industry was not surveyed last year.
[2] Not ranked last year
[3] Tied last year

BUSINESS COPES WITH TERRORISM

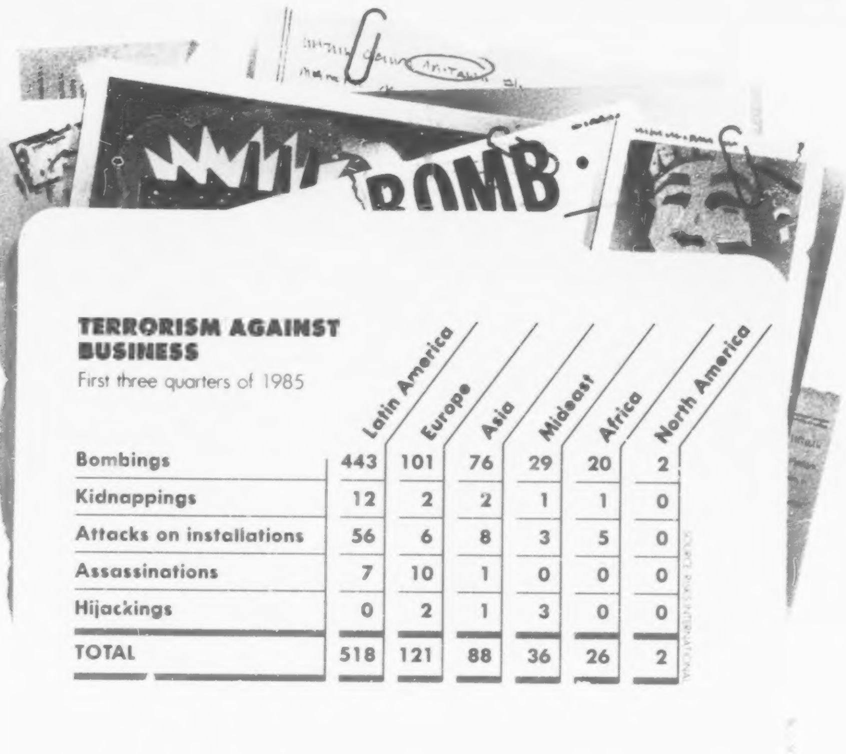
U.S. executives have learned to live with the problem. A few pointers: Pick your airline carefully in the Mideast. Think twice before dropping by the office at night in Europe. Consider steel walls for the executive bathroom in Latin America. And stay out of Kampala. ■ *by Brian O'Reilly*

AT 6:30 IN THE MORNING last August 16, Michael Stewart, an engineer with Tenneco in Colombia, climbed into his chauffeur-driven car outside the Fontana Hotel in Bogotá. After proceeding a few blocks, his car was rammed from behind by a man driving a Mazda. Stewart's driver jumped out to investigate and was suddenly surrounded by armed men. The men forced the driver back into the car, and drove it away. They dropped the driver off after a few minutes, but Stewart is still missing. While the *Achille Lauro* hijacking got the headlines, crimes like Stewart's kidnapping represent the more constant terrorist threat to U.S. businesses abroad.

Let's not overstate the problem. In 1984 only 21 terrorist attacks on American businesses and executives occurred worldwide. But the people caught up in those 21 attacks had good cause to be terrified—28 were killed, 64 were wounded, and property damage amounted to $22 million, according to Risks International, a Virginia firm that moni-

BANK
AMERICA

A terrorist bomb *wrecked the Bank of America's office in Antwerp December 4. Two people were injured, neither seriously.*



TERRORISM AGAINST BUSINESS
First three quarters of 1985

	Latin America	Europe	Asia	Mideast	Africa	North America
Bombings	443	101	76	29	20	2
Kidnappings	12	2	2	1	1	0
Attacks on installations	56	6	8	3	5	0
Assassinations	7	10	1	0	0	0
Hijackings	0	2	1	3	0	0
TOTAL	518	121	88	36	26	2

Hot Spots (and Cool)

The table tallies attacks on all businesses in a region, not just on U.S. companies there. In Asia, for example, native businessmen in Sri Lanka and the Philippines take the heat; few Americans suffer. Attacks on installations exclude bombings; they include, say, machine-gun assaults.

tors terrorism. Terrorist incidents have been increasing at roughly a 12% to 15% annual rate for the past ten years—in the first nine months of 1985 the number of attacks on American business overseas grew to 29. Such attacks are also becoming more violent; terrorists seeking to draw attention to their causes seem to require ever gorier events to arrest the public eye. And while U.S. government installations have been the object of most anti-American attacks in the past, those installations are getting better fortified, so experts expect terrorists will shift to corporate targets. "There's no end in sight," laments Brian M. Jenkins, an authority on terrorism with the Rand Corp. think tank in Santa Monica. "World War II may have been the culmination of international warfare. Terrorism, by contrast, allows countries to wage war at low cost without accepting responsibility."

Corporate reactions differ. Occidental Petroleum and Chevron have developed reputations for being macho, willing to face hazards in Sudan, for example, that their competitors avoid. Other companies seem more cautious, or at least less visible. While Exxon, Texaco, IBM, Avis, and Phelps Dodge still have operations in strife-torn El Salvador, most of their executives live behind walls so high that a resident says strolling past them is like walking through a "topless tunnel."

To man the corporate outposts, companies rely on a hardy variety of legionnaire-executives, complete with a bit of swagger. "A guy in Idaho might say, 'Wait a minute,' " says a food company executive in Bogotá of the kidnappings and bombings that threaten him, "but the career international executives aren't too shocked. The career expatriates are used to it." For all their cool, though, most will only talk about their experiences if they're not quoted by name.

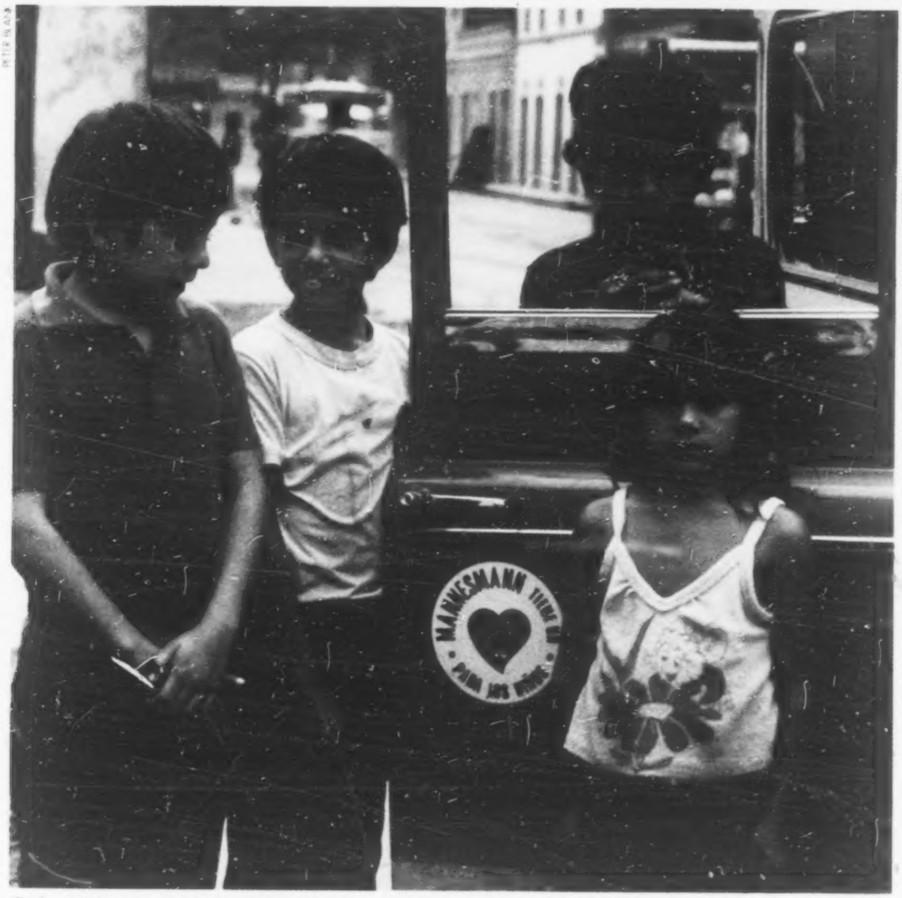
The first trick to surviving, they report, is knowing what to expect where. Terrorists' techniques and their selection of targets vary enormously around the world. Quite possibly the worst place on earth to do business is Kampala, the capital of Uganda. Drunken soldiers there have dragged people out of hotel rooms at night and executed them. To protect an American who recently visited the place to sell spare airplane parts, his customer, the government, hired presumably better-behaved soldiers. "Everywhere I went," he says, "the soldiers were carrying M-60 machine guns. When we were all inside the car, it seemed as if all four gun muzzles were poking in my ribs. I shudder to think what would have happened if anything had gone wrong."

Companies usually leave a country before things get as bad as in Kampala. Terrorism and guerrilla warfare are tolerable for business, but anarchy is not. "As a rule of thumb, the cost of protecting yourself from terrorists is about 1% or 1.5% of revenues," says a former treasurer for international operations at a big oil-drilling services company. "By the time the cost of protecting yourself rises to more than 3% of revenues, you're facing a complete breakdown of society, and it's not a question of protection but of running your business. You can't get raw materials in or finished products out, and the local currency is shot. By then it's time to pull out."

In the Mideast, airplane hijacking represents the greatest fear of most American businessmen, particularly those flying relatively obscure Arab airlines. An American forced to travel frequently in the region sometimes wears a lapel pin he hopes will ward off trouble. "Down With Israel," it reads. Some airlines flying to the Gulf states are considered comparatively safe. "We like Olympic Airways, SAS, and Swissair," says Mike Ackerman, a partner in Ackerman & Palumbo, a Miami consulting firm that has been trying to rank various airlines for safety as part of its business helping companies cope with terrorism. The policies of governments behind those airlines have not angered terrorists in the region.

IN WESTERN EUROPE, radical leftists stage much of the violence against U.S. corporations. American banks and computer companies have been popular targets for terrorists dedicated to fighting what they view as Yankee economic imperialism, but now groups opposed to the proliferation of cruise missiles have made defense contractors an additional priority, particularly in Belgium and West Germany. The preferred weapon among terrorists in Europe is the bomb, usually directed at an office building or factory. So far, the bombs have proved little more than inconvenient. They're typically set to explode at night, damaging property but injuring few people. "When a bomb went off ten years ago, corporations used to call a

RESEARCH ASSOCIATE *Kate Ballen*



Colombian press reports *allege that a German firm put this heart on its vehicles to signal that it had acceded to terrorist demands. The company says the symbol simply encourages safe driving.*

SAFE HAVEN

■ For all the money that companies spend protecting executives in the U.S.—and experts say the amount is increasing—the danger remains small. Of about 2,300 terrorist incidents that occurred worldwide in the first nine months of 1985, only eight took place in the U.S., and only two were directed against business. Both were attempted bombings of bank offices in New York City. While there were 13 terrorist incidents in the U.S. in 1984, only five hit businesses—bombings of Motorola, IBM, General Electric, Union Carbide, and Israel Aircraft Industries International facilities in New York. No one was injured.

Kidnappings in the U.S. have been the work of common criminals, not political terrorists, and a mere fraction have businessmen as victims. Only 15 kidnappings investigated by the FBI in the past five years involved ransom demands for release of executives or their families. Who is most frequently threatened? Rural bankers. They are highly visible figures in their communities and are thought to be able to get their hands on money quickly. Besides, kidnappers figure small-town police pose little problem.

meeting of the board of directors," says Jenkins. "Now it's considered a form of violent graffiti."

The experts think European terrorists could turn nastier soon. A militant leftist group that calls its targets to warn of impending bombs says future attacks "could wound or kill Yankee military or their accomplices." Eugene Mastrangelo, senior analyst at Risks International, notes that the head of a German industrial company doing defense work was kidnapped and killed recently. He worries that U.S. defense company employees in Germany face some of the worst risks of any expatriate Americans.

For now, though, terrorists have the biggest impact on the lives of businessmen in Latin America, where the most feared tactic is kidnapping. In December, for example, the Colombian government announced that terrorists had demanded $6 million in ransom for two kidnapped Americans, both employees of contractors working for Occidental Petroleum. In the past 15 years Latin American terrorists have kidnapped over 1,000 people for ransom, more than 35 employed by American companies.

In Latin America kidnappings are primarily a business proposition. Terrorists use the proceeds to finance political activities. "In the Mideast," Ackerman notes by contrast, "terrorist groups are often secretly funded by local governments and don't need money. They'll use a kidnap victim to win the release of political prisoners." The Latin American kidnapper's need for money makes negotiating a victim's release easier. Explains Ackerman, an ex-CIA agent who has negotiated with terrorists in over 20 kidnappings: "Normally the hostage will be returned alive if the money is paid, because the kidnapper has to maintain his credibility."

Kidnapping makes it risky for a high-ranking corporate visitor from the U.S. to linger in Colombia or Peru. But the experts say brief visits are usually okay because kidnappings take a while to plan. So top executives from the States practice what's called commando management, roaring into Bogotá or Lima for a few days to meet hastily with local employees and flying off before kidnappers discover they've arrived.

But after the big boss flies back to Peoria, how is the underling American to cope in Bogotá? Drug dealers, street crime, and terrorists unnerve managers of the 250 U.S. companies doing business there. Homes and offices are well fortified. Adjoining one executive's office is a steel-plated bathroom; he can survive there for days in case of attack. Some companies use Spanish-sounding names to do business in Colombia, but their expatriate managers have few illusions about fooling anyone. "The bad guys know who I am," says one.

"If they want you, they'll get you," concludes an oil company executive there. He has dispensed with guns and bodyguards—a Texaco official kidnapped in Bogotá had armed bodyguards, he explains, and the guards were killed immediately. He goes on: "I try to blend in. A lot of my friends are Colombian. Some people say that by integrating myself I'm in more danger, but I feel the risk is worse if I'm an obvious target."

The greatest risk of kidnapping comes during the commute to work. One executive makes the trip every day in a bulletproof limousine, a pistol tucked under his driver's leg, a machine gun under the seat, and motorcycle escorts roaring around blocking off intersections. The head of another company, in contrast, drives his own car to work rather than have a bodyguard do the job. "Most bodyguards would have to work 20 years to afford this car," he reasons. "In that split second at the start of an ambush, where you might be able to ram through a roadblock, a bodyguard might hesitate, thinking he has to save the car."

WHEN SECURITY procedures are determined at corporate headquarters 3,000 miles away, they can prompt considerable grumbling. "The stuff I have to go through to protect myself is worse than the terrorists," complains an American in Bogotá. "The last people my wife and I see at night are my goons, and they're the first I see in the morning." The security so crimps his life that he's afraid no one will be willing to replace him. "Nobody expects an executive to refuse a transfer because he doesn't like the weather," he says, "but being forced to live in a cocoon is different." His teenage daughter complains she can't even hold hands with her boyfriend because of the ever present bodyguards. Her father chuckles: "That's the part about bodyguards I don't mind."

The recent experience of a firm working with Occidental Petroleum in Colombia demonstrates just how hard it is to figure out the proper course to take with terrorists. In 1984 Oxy discovered a billion barrels of oil in northeast Colombia. The oil giant hired Mannesmann Anlagenbau, a German construction firm that's a subsidiary of the big metal-products company, to build part of a 500-mile pipeline across the terrorist-infested Andes to the Pacific.

Mannesmann says that from the start it consistently refused to negotiate with the terrorists, known as the ELN, a leftist guerrilla group. A German engineer and two engineering students it employed were promptly kidnapped. Local newspapers reported that Mannesmann had to pay $2 million to ransom its employees. Then, according to the Colombian press, a Spanish military officer claiming to be working for Mannesmann offered a bribe to a Colombian general in the hope of getting army protection for some parts of the construction project. The general spurned the offer, and a scandal erupted.

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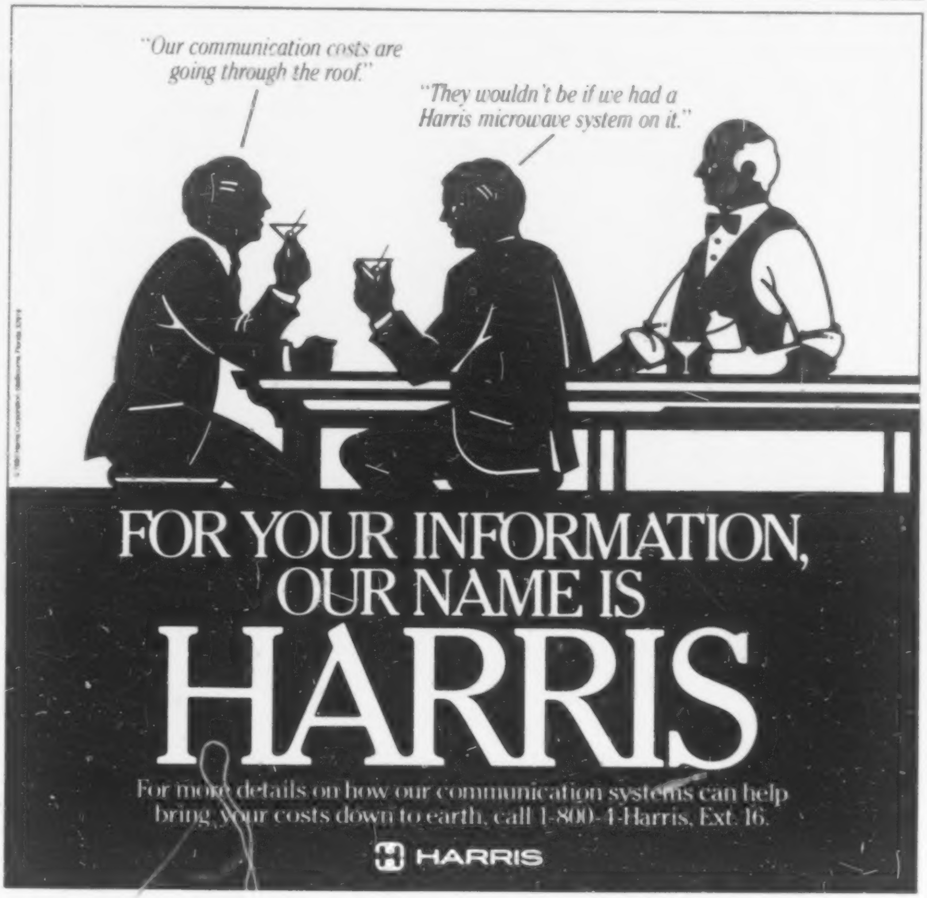
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Mannesmann denies that the Spaniard acted on its behalf.

The construction firm decided to give jobs, food, clothing, and medicine to the local population, which undoubtedly included some ELN terrorists. At about the same time, according to *Semana*, a Colombian newsweekly, the ELN suggested that all of Mannesmann's vehicles carry a sticker with a red heart and the words, in Spanish, "Mannesmann has a heart for children." According to the story, this was to serve as a signal to local villagers that the company was meeting the ELN's demands, thereby enhancing the guerrillas' reputation. Mannesmann denies this too: it says the hearts remind its drivers to be careful and demonstrate the firm's regret over a motor accident that injured a child.

SOON the Colombian Army became interested. Army units showed up uninvited at Mannesmann's construction camps, demanding food, shelter, and transportation. Worried that the army's presence might turn the work camps into battlefields with the ELN, Mannesmann requested that soldiers be forbidden to enter the work camps. To placate both the terrorists and the government, Mannesmann agreed to spend $1 million a year to build roads, schools, health facilities, and reservoirs near the pipeline, with the projects to be managed by local priests.

For the undaunted company still hankering to do business abroad, a few principles for coping with terrorism:

▶ **Know the enemy.** It can matter, for example, whether the local terrorists are urban or rural. "One American company wanted to grow some exotic vegetables in South America and was trying to choose between Colombia and Chile," recalls a consultant. "In Chile the terrorists operate mostly in cities, and in Colombia they're urban and rural. We told them they'd have less trouble in Chile."

▶ **Know the experts.** Consulting firms and the State Department keep tabs on terrorist activity overseas. In some countries it's technically illegal to pay ransom. Unfortunately, that's often the only way to get the victim back. Consultants can sometimes arrange payment.

▶ **Don't bank on welfare programs.** They don't guarantee immunity from trouble. Such programs may work in rural areas where the terrorists are trying to win over peasants and can take credit for extracting the largesse. But goodwill programs can be positively risky in cities, warns an expatriate

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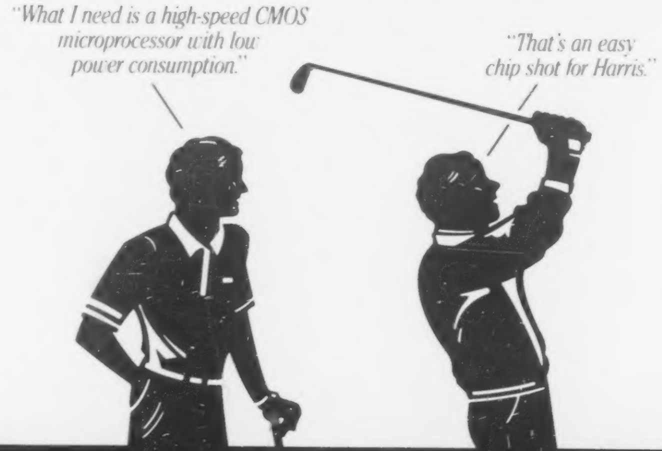
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American executive: "In my experience, urban terrorists are much more dangerous," he says. "They want the flight of capital and the insecurity that violence brings. If you try to endear yourself to the people, you can just make the terrorists angry."

▶ **Treat employees well.** A heavy-handed, unpopular manager can get in trouble if terrorists think they will win points with workers by kidnapping or killing him. A shoe company operating in Latin America brought in an autocratic Dutchman to make improvements in a factory a few years ago. An auto company did something similar in Italy. In both instances, after the newcomers had ordered a few layoffs, they were kidnapped.

▶ **Prepare for the worst.** Determine in advance who will handle negotiations if someone is kidnapped and figure out what say the victim's family will have in the matter. Kidnap ransom insurance is available, costing from a few thousand dollars a year for companies operating solely in the U.S. to $500,000 for a sprawling multinational.

▶ **Listen to the local manager.** Not Dan Rather. Top brass stateside too often make decisions about faraway places based on what they see on the evening news. After an embassy bombing in Latin America, a company president promptly told his manager to leave town for a few days. The man balked, confident that the bombing wouldn't spread: "When there were riots in Watts, nobody ordered their managers in Los Angeles to pull back to San Francisco. I said I wasn't going."

▶ **Be careful hiring local managers.** Nationals are increasingly popular with American companies as managers of installations abroad, partly because they can cost half as much to support as Americans. Some companies think hiring locals helps ward off terrorism, too; they reason that kidnapping a Yankee wins a terrorist group more points with the community than grabbing a native. Expatriates aren't always so sure. Some argue that many nationals are more loyal to themselves than to the company—more likely, that is, to skim profits or accept kickbacks on contracts. In at least one instance, expatriates say, an American was kidnapped not by terrorists but by locals trying to stop his investigation into wrongdoing by nationals who worked for the company in that country.

▶ **Think about locating in Asia.** There's almost no risk of terrorist attack to American or other foreign businesses there, the experts report, at least if you stay out of the Philippines. Says consultant Ackerman, "If it weren't for the Philippines, my Asia man would hardly have any work to do." ■

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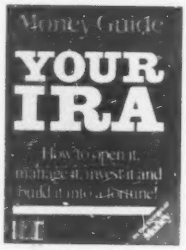
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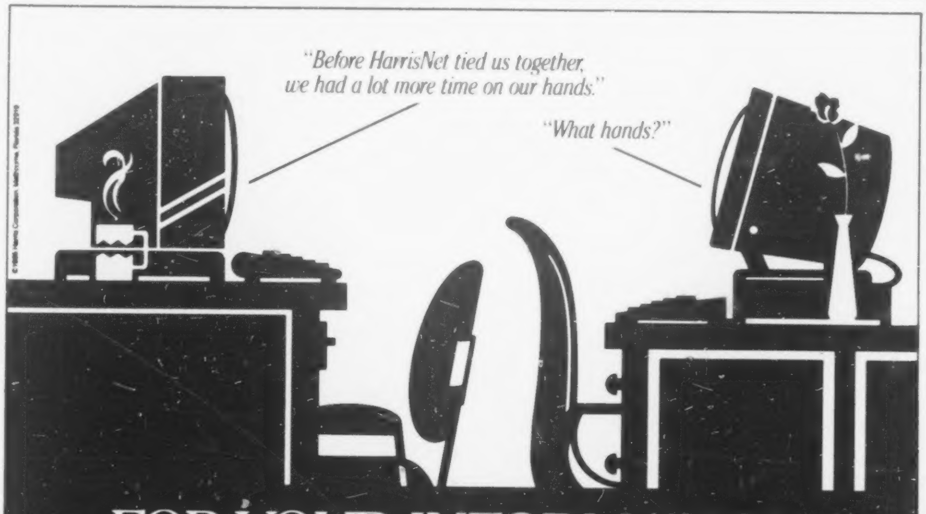
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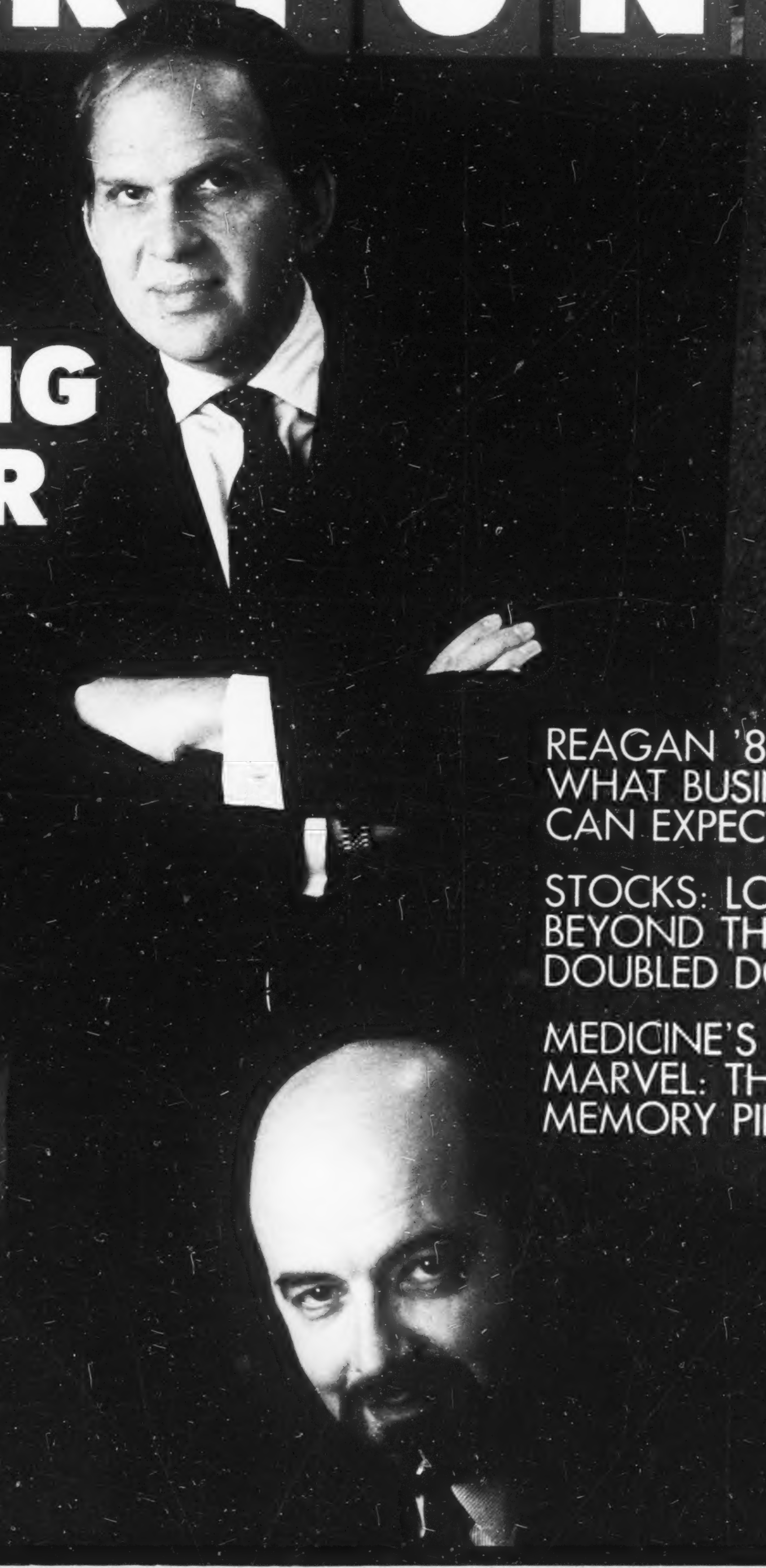

Mega-Dealmakers Bruce Wasserstein (top) and Joseph R. Perella

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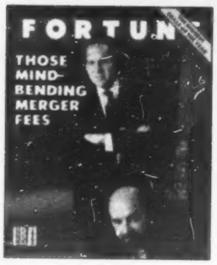

For the cover, Antonin Kratochvil photographed the top merger-and-acquistion specialists of First Boston Corp., which handled deals worth $60 billion in 1985. See pages 18 and 26.

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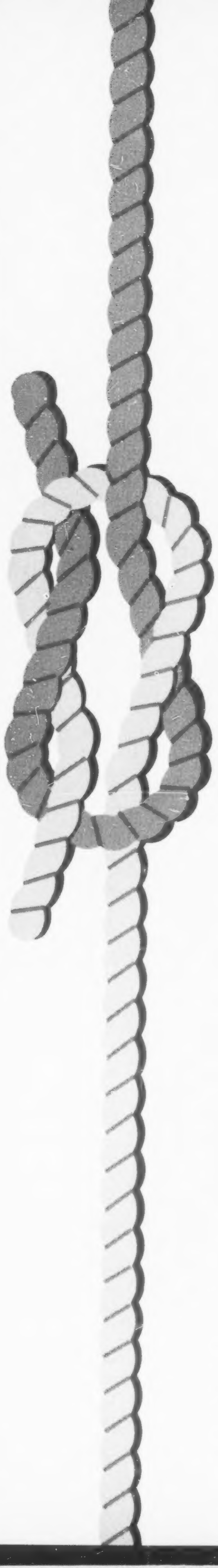


DEALS OF THE YEAR

In frenzied 1985, record sums changed hands in the biggest U.S. corporate marriages and securities offerings. Food companies with well-established brand names were among the prime takeover targets.

■ *by David Kirkpatrick*

DEALS WERE DONE at a dizzying pace in 1985, as companies galore swallowed other companies, went private, and took subsidiaries public. The total value of completed deals on FORTUNE's list of the 50 biggest corporate combinations and securities offerings is $94.6 billion, a 20% increase over 1984. In the tally are mergers, acquisitions, and stock buybacks to which a U.S. company was a party, and public offerings in the U.S. As 1986 rolled in, another medley of mammoth deals was waiting to be wrapped up.

Food companies, dominating the 1985 merger menu, were gobbled up in three of the top ten deals. "Companies wanted brands with a good position on the supermarket shelf," says Roger Miller, a managing director in Salomon Brothers' merger and acquisition department. "They concluded it was cheaper to get them by buying another whole company." Several drug and cosmetic companies also got picked off in the brand-name fever.

While no deal matched 1984's Chevron-Gulf merger, valued at a record $13.2 billion, 1985 saw twice as many deals above $2 billion. Other superlatives: the biggest-ever non-oil merger (Philip Morris-General Foods, deal No. 2); a record breaker among leveraged buyouts, which are financed mainly with debt paid off from the acquired company's cash flow or the sale of its assets (Storer Communications, No. 12); and the two largest initial public offerings, Fireman's Fund (No. 41) and Rockefeller Center Properties (No. 47). Both offerings topped the record held by a $658-million sale of Ford Motor stock in 1956. Because seven deals at the bottom of the list were tied at a value of $750 million, including the Rockefeller Center issue, the list includes 53 transactions.

The easy availability of financing meant that almost anything could happen. Tiny Pantry Pride (fiscal 1985 sales: $345 million) took over $2.4-billion-a-year Revlon as the business world gaped (No. 15). But the investment bankers weren't complaining. On the Revlon deal alone they received $24.3 million in fees. For all the deals on FORTUNE's list, investment firms pocketed $588 million, not counting additional millions in commissions for putting together financing to consummate the deals. Morgan Stanley led in dealmakers' fees, garnering at least $82 million from the transactions shown here, followed by First Boston with $72 million. Goldman Sachs was right behind with $71 million.

Erecting creative defenses was a big part of the investment firms' work. Among the deals on the list are four stock buybacks aimed at increasing the value of the companies' remaining shares. Oil companies struggling successfully to fend off T. Boone Pickens Jr., chairman of Mesa Petroleum, executed the two most expensive buybacks (Nos. 6 and 7). Four of the companies that went private—Storer, Levi Strauss (No. 19), Cox Communications (No. 21), and Uniroyal (No. 40)—also did so largely in fear of an unfriendly takeover.

Many companies, in addition to Revlon, wound up in unwanted hands. American Hospital Supply fell to Baxter Travenol (No. 8), American Natural Resources to Coastal (No. 11), and McGraw-Edison to Cooper Industries (No. 27). Sometimes the safest bet was to embrace a white knight, as Richardson-Vicks did when it sold out to Procter & Gamble (No. 25) to escape Unilever.

High on the deals calendar for early 1986 is U.S. Steel's pending acquisition of Texas Oil & Gas for $3.7 billion. Capital Cities Communications is getting ready to acquire American Broadcasting Cos. for $3.6 billion. Expect another year of records. The leveraged buyout of Beatrice Cos. by Kohlberg Kravis Roberts & Co. will be, at $6.2 billion, the largest in history. General Electric will swallow RCA for $6.3 billion, another new high for non-oil mergers. Will Union Carbide fall to little GAF? Only the big investment banker in the sky knows for sure.

ILLUSTRATIONS BY ELIOT BERGMAN

BIGGEST DEALS OF 1985

RANK		VALUE (000) PERCENT OF BOOK VALUE	TRANSACTION	COMPANIES INDUSTRY	FINANCIAL INTERMEDIARIES	FEE (000)	FEE AS PERCENT OF DEAL
1	**ROYAL DUTCH/SHELL acquires 30.5% of SHELL OIL**[1]	**$5,700,118** 147.7%	Acquisition of 95 million shares for cash, completed June 7	**Royal Dutch/Shell Group**	Morgan Stanley	$5,000	.09%
				Shell Oil	Goldman Sachs	$3,700	.06%
2	**PHILIP MORRIS acquires GENERAL FOODS**	**$5,627,671** 286.1%	Acquisition for cash, November 1	**Philip Morris Cos.** Cigarettes and beverages	First Boston	$10,100	.18%
				General Foods	Goldman Sachs Shearson Lehman Bros.	$7,100 $7,100	.13% .13%
3	**ALLIED merges with SIGNAL COS.**	**$4,944,967**[2] 178.5%	Tender offer for 20% of Signal common shares, followed by merger by exchange of common stock to form Allied-Signal, September 19	**Allied** Multi-industry	First Boston	$10,000	.20%
				Signal Cos. Multi-industry	Lazard Frères	$10,000	.20%
4	**R.J. REYNOLDS acquires NABISCO**	**$4,889,051** 309%	Acquisition for cash, preferred stock, and notes, September 10	**R.J. Reynolds Industries** Tobacco, food, and consumer products	Dillon Read	$9,000	.18%
				Nabisco Brands Food	Morgan Stanley Shearson Lehman Bros.	$5,000 $5,000	.10% .10%
5	**GENERAL MOTORS acquires HUGHES AIRCRAFT from HOWARD HUGHES MEDICAL INSTITUTE**	**$4,712,500** 431.2%	Acquisition for cash, General Motors class H common stock and certain future payments, December 20	**General Motors**	Salomon Bros.	$8,000	.16%
				Hughes Aircraft Defense electronics	First Boston	$15,000*	.32%
				Howard Hughes Medical Institute	Morgan Stanley	$19,000	.40%
6	**PHILLIPS PETROLEUM repurchases 49.8% of its common stock**	**$4,567,913** 138.5%	Tender offer to exchange notes and debentures for 72.58 million shares, March 15	**Phillips Petroleum**	Morgan Stanley First Boston	$14,000 $11,000	.31% .24%
7	**UNOCAL repurchases 33.3% of its common stock**	**$4,337,947** 223.7%	Tender offer to exchange notes for 57.85 million shares, May 17	**Unocal** Oil and gas	Dillon Read Goldman Sachs	$12,500* $12,500*	.29% .29%
8	**BAXTER TRAVENOL acquires AMERICAN HOSPITAL SUPPLY**	**$3,747,181** 235.5%	Acquisition for cash, common stock, and preferred stock, November 25	**Baxter Travenol Laboratories** Health care products	First Boston	$8,000	.21%
				American Hospital Supply Health care products	Goldman Sachs Merrill Lynch	$7,500 $5,000	.20% .13%
9	**NESTLÉ acquires CARNATION**	**$2,940,661** 241.8%	Acquisition for cash, January 30	**Nestlé** Food	First Boston	$4,500	.15%
				Carnation Food	Kidder Peabody	$15,100	.51%
10	**MONSANTO acquires G.D. SEARLE**	**$2,744,950** 522.5%	Acquisition for cash, October 1	**Monsanto** Chemicals and related products	Goldman Sachs	$8,000	.29%
				G.D. Searle Drugs and consumer products	Morgan Stanley William Blair	$6,300 $1,800	.23% .07%
11	**COASTAL acquires AMERICAN NATURAL RESOURCES**[3]	**$2,461,961** 215.1%	Acquisition for cash, May 15	**Coastal** Energy	Drexel Burnham Lambert	$500	.02%
				American Natural Resources Natural gas transmission	Goldman Sachs First Boston	$8,000 $3,000	.32% .12%
12	**SCI HOLDINGS**[4] **acquires STORER COMMUNICATIONS**	**$2,358,528** 625.4%	Leveraged buyout for cash and warrants to purchase SCI Holdings' common stock, December 5	**SCI Holdings**	Kohlberg Kravis Roberts Kidder Peabody	$23,000 N.A.	.98% --
				Storer Communications Broadcast and cable television	Dillon Read	$8,918	.38%
13	**INTERNORTH acquires HOUSTON NATURAL GAS**	**$2,287,334** 224.2%	Acquisition for cash, July 16	**InterNorth** Natural gas transmission	Goldman Sachs	$4,500	.20%
				Houston Natural Gas	Lazard Frères	$7,000	.31%
14	**OLYMPIA & YORK acquires 60.2% of GULF CANADA from CHEVRON**	**$2,140,000** 142.2%	Acquisition of 49.9% on August 2 and 10.3% on December 2, for cash	**Olympia & York Developments** Real estate and investments	Merrill Lynch McLeod Young Weir	$1,100 $1,100	.05% .05%
				Chevron Oil and gas	Salomon Bros. Wood Gundy	$8,750 N.A.	.41% —
15	**PANTRY PRIDE acquires REVLON**	**$1,768,199** 300.2%	Acquisition for cash, December 26	**Pantry Pride** Supermarkets and drugstores	Drexel Burnham Lambert Morgan Stanley	$5,500 $6,000	.31% .34%
				Revlon Pharmaceuticals and cosmetics	Lazard Frères	$12,750	.72%
16	**Group led by KOHLBERG KRAVIS ROBERTS acquires 50.3% of UNION TEXAS PETROLEUM from ALLIED**	**$1,714,000** 180.4%	Leveraged buyout for cash and Union Texas preferred stock, July 2	**Kohlberg Kravis Roberts**	Kohlberg Kravis Roberts	$14,000	.82%
				Allied Multi-industry	First Boston	$2,000	.12%

Mergers and acquisitions

Debt and equity offerings

*Fortune estimate
N.A. Not available
[1] Royal Dutch/Shell Group previously owned 68.8%
[2] Valued as if Allied were the buyer
[3] Coastal previously owned 4.2%
[4] Group led by Kohlberg Kravis Roberts

BIGGEST DEALS OF 1985

RANK		VALUE (000) PERCENT OF BOOK VALUE	TRANSACTION	COMPANIES INDUSTRY	FINANCIAL INTERMEDIARIES	FEE (000)	FEE AS PERCENT OF DEAL
17	**ROCKWELL INTERNATIONAL acquires ALLEN-BRADLEY**	**$1,651,000** N.A.	Acquisition for cash, completed February 20	**Rockwell International** Aerospace, electronics	E.F. Hutton	N.A.	—
				Allen-Bradley Industrial automation and electronics	Morgan Stanley	N.A.	—
18	**FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds**	**$1,500,000**	Offering of 9.85% debentures, due 1990, July 3	**Federal National Mortgage Association** Mortgage holder	Various dealers	$2,921	.19%
19	**HHF CORP.[5] acquires 80.3% of LEVI STRAUSS**	**$1,489,151** 226.9%	Leveraged buyout for cash, August 30	**HHF Corp.**	Hellman & Friedman	$7,000	.47%
				Levi Strauss Apparel	Goldman Sachs Montgomery Securities	$1,500 $500	.10% .03%
20	**TEXTRON acquires AVCO**	**$1,400,000** 117.9%	Acquisition for cash, February 28	**Textron** Multi-industry	Morgan Stanley Salomon Bros.	$3,750 $2,500	.27% .18%
				Avco Multi-industry	Kidder Peabody	$7,100	.51%
21	**COX ENTERPRISES acquires 63% of COX COMMUNICATIONS[6]**	**$1,343,547** 342.5%	Acquisition for cash, September 1	**Cox Enterprises** Newspapers	First Boston	$1,500	.11%
				Cox Communications Broadcast and cable television, radio	None	—	—
22	**LITTON INDUSTRIES repurchases 35.8% of its common stock**	**$1,339,185** 172%	Tender offer to exchange notes and debentures for 11.4 million shares, June 11[7]	**Litton Industries** Electronics	Morgan Stanley	$3,500	.26%
23	**MIDCON acquires UNITED ENERGY RESOURCES**	**$1,256,640** 143.2%	Acquisition for cash and stock, December 12	**MidCon** Natural gas transmission	Merrill Lynch	$5,000	.40%
				United Energy Resources Natural gas transmission	First Boston	$4,562	.36%
24	**CHESEBROUGH-POND'S acquires STAUFFER CHEMICAL**	**$1,253,399** 131.8%	Acquisition for cash, March 28	**Chesebrough-Pond's** Consumer products	Shearson Lehman Bros.	$4,000	.32%
				Stauffer Chemical	Morgan Stanley	$4,000	.32%
25	**PROCTER & GAMBLE acquires RICHARDSON-VICKS**	**$1,209,405** 249.8%	Acquisition for cash, November 13	**Procter & Gamble** Consumer products	Goldman Sachs	$6,000	.50%
				Richardson-Vicks Consumer products	Kidder Peabody	$8,300	.69%
26	**FARLEY INDUSTRIES acquires NORTHWEST INDUSTRIES**	**$1,156,707** 818%	Leveraged buyout for cash and preferred stock, July 31[8]	**Farley Industries** Multi-industry	Drexel Burnham Lambert	$7,000	.61%
				Northwest Industries Multi-industry	Salomon Bros. Goldman Sachs	$3,500 $3,500	.30% .30%
27	**COOPER INDUSTRIES acquires MCGRAW-EDISON[9]**	**$1,053,590** 183.5%	Acquisition for cash, May 31	**Cooper Industries** Tools, heavy equipment, and electronics	Morgan Stanley	$4,250	.40%
				McGraw-Edison Electrical and industrial products	Goldman Sachs	$3,200	.30%
28	**FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds**	**$1,000,000**	Offering of 10.75% debentures, due 1988, January 4	**Federal National Mortgage Association**	Various dealers	$1,463	.15%
	FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds	**$1,000,000**	Offering of 11.1% debentures, due 1989, January 17	**Federal National Mortgage Association**	Various dealers	$1,750	.18%
	FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds	**$1,000,000**	Offering of 11.05% debentures, due 1990, January 25	**Federal National Mortgage Association**	Various dealers	$2,000	.20%
	FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds	**$1,000,000**	Offering of 11.5% debentures, due 1995, January 25	**Federal National Mortgage Association**	Various dealers	$3,000	.30%
	FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds	**$1,000,000**	Offering of 12% debentures, due 1992, April 3	**Federal National Mortgage Association**	Various dealers	$2,450	.25%
	FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds	**$1,000,000**	Offering of 10.5% debentures, due 1988, May 1	**Federal National Mortgage Association**	Various dealers	$1,500	.15%
	FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds	**$1,000,000**	Offering of 11.15% debentures, due 1995, May 17	**Federal National Mortgage Association**	Various dealers	$3,000	.30%

Mergers and acquisitions

Debt and equity offerings

N.A. Not available

[5] Company formed by Hellman & Friedman and Levi officers. HHF investors previously owned 19.7% of Levi shares, which they converted into HHF shares.

[6] Cox Enterprises previously owned 10%. Cox family members converted 27% into shares of Cox Enterprises, which is principally owned by them.

[7] Deal also includes 3.6 million shares bought from Teledyne simultaneously.

[8] Each Northwest shareholder also received one share of Lone Star Steel Co., which was spun off as part of the deal. Northwest's book value was calculated assuming distribution of Lone Star.

[9] Cooper previously owned 2.2%.

RANK		VALUE (000) PERCENT OF BOOK VALUE	TRANSACTION	COMPANIES INDUSTRY	FINANCIAL INTERMEDIARIES	FEE (000)	FEE AS PERCENT OF DEAL
35	**ATLANTIC RICHFIELD sells notes and bonds**	**$1,000,000**	Offering of $500 million of 10⅜% notes due 1995 and $500 million of 10⅞% debentures due 2005, completed July 10	**Atlantic Richfield** Oil and gas	Salomon Bros.• First Boston	$7,750	.78%
36	**BASF acquires INMONT from UNITED TECHNOLOGIES**	**$1,000,000** N.A.	Acquisition for cash, August 21	**BASF** Chemicals and natural resources	Morgan Stanley	$4,000*	.40%
				Inmont Inks and automotive coatings			
				United Technologies Multi-industry	Salomon Bros.	$4,500	.45%
37	**FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds**	**$1,000,000**	Offering of 9.85% debentures, due 1989, October 30	**Federal National Mortgage Association**	Various dealers	$1,750	.18%
38	**WICKES COS. acquires the Consumer and Industrial Products Group of GULF & WESTERN**	**$948,800** 127%	Acquisition for cash and a 5-year option to purchase 10 million Wickes common shares at $6 per share, September 12	**Wickes Cos.** Diversified retailer	Drexel Burnham Lambert	$4,744	.50%
				Gulf & Western Industries Entertainment, publishing, and financial services	Kidder Peabody	N.A.	—
39	**CBS repurchases 21.4% of its common stock**	**$940,747** 276.8%	Tender offer to exchange cash and notes for 6.365 million shares, July 31	**CBS** Broadcasting	Morgan Stanley	$3,992	.42%
40	**CDU ACQUISITION[10] acquires UNIROYAL**	**$933,000** 120.7%	Leveraged buyout for cash, September 24	**CDU Acquisition**	Drexel Burnham Lambert	$5,000	.54%
				Uniroyal Chemicals, rubber and plastic products	Salomon Bros.	$4,000	.43%
41	**AMERICAN EXPRESS and FIREMAN'S FUND sell FIREMAN'S FUND common stock**	**$906,400** 114.5%	Initial public offering of 35.2 million shares (53.2%), October 23[11]	**American Express** **Fireman's Fund** Insurance	Shearson Lehman Bros.• Salomon Bros.	$47,520	5.24%
42	**SUN BANKS merges with TRUST CO. OF GEORGIA**	**$899,755[12]** 199.5%	Merger by exchange of common stock to form SunTrust Banks, July 1	**Sun Banks**	Keefe Bruyette & Woods	$1,500	.17%
				Trust Co. of Georgia	Morgan Stanley	$3,000	.33%
43	**CHRYSLER sells bonds**	**$800,000**	Offering of 12% debentures, due 2015, November 15	**Chrysler** Motor vehicles	Salomon Bros.• First Boston Merrill Lynch Shearson Lehman Bros. Smith Barney	$7,000	.88%
44	**SEDGWICK GROUP acquires FRED S. JAMES from TRANSAMERICA**	**$787,527** 238.6%	Acquisition for 39% of Sedgwick common stock (29% of voting stock), August 30	**Sedgwick Group** Insurance	N.M. Rothschild & Sons	N.A.	N.A.
				Fred S. James & Co. Insurance			
				Transamerica Multi-industry	Morgan Grenfell & Co.	N.A.	N.A.
45	**TAFT BROADCASTING and CBS acquire television and radio stations from GULF BROADCAST**	**$760,000** 247.8%	Acquisition for cash, July 31. Taft bought five television and four radio stations, and CBS bought three radio stations.	**Taft Broadcasting**	First Boston	$2,500*	.33%
				CBS	None		
				Gulf Broadcast	Goldman Sachs	$5,700*	.75%
46	**HMI HOLDINGS[13] acquires HOUSEHOLD MERCHANDISING from HOUSEHOLD INTERNATIONAL**	**$757,200** 132.8%	Leveraged buyout for cash, notes and 10% of HMI Holdings, December 31[14]	**HMI Holdings**	Donaldson Lufkin Jenrette	N.A.	—
				Household Merchandising Supermarkets, variety, and discount stores			
				Household International Multi-industry	Goldman Sachs	N.A.	—
47	**IMPERIAL CHEMICAL INDUSTRIES acquires chemical operations from BEATRICE COS.**	**$750,000** 483.9%	Acquisition for cash, March 1	**Imperial Chemical Industries**	Smith Barney Morgan Lewis Githens & Ahn	N.A. N.A.	— —
				Beatrice Cos. Food	Salomon Bros. Lazard Frères	$3,750 $3,750	.50% .50%
	FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds	**$750,000**	Offering of 9.5% debentures, due 1989, June 5	**Federal National Mortgage Association**	Various dealers	$1,295	.17%
	FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds	**$750,000**	Offering of 10.125% debentures, due 1992, June 5	**Federal National Mortgage Association**	Various dealers	$1,853	.25%
	ROYAL DUTCH/SHELL GROUP acquires 50% of Colombian oil fields from OCCIDENTAL PETROLEUM	**$750,000[15]** N.A.	Acquisition for cash, July 1	**Occidental Petroleum**	N.A.	—	—
				Royal Dutch/Shell Group	None	—	—

*FORTUNE estimate
•Lead manager
N.A. Not available
[10] Group led by Clayton & Dubilier

[11] American Express sold 27.2 million and Fireman's Fund sold eight million. Fireman's Fund was previously wholly owned by American Express

[12] Valued as if Sun Banks were the buyer

[13] Group led by Donaldson Lufkin & Jenrette

[14] Scheduled closing date

[15] Plus an additional $200 million when production reaches certain levels

BIGGEST DEALS OF 1985

RANK	VALUE (000) PERCENT OF BOOK VALUE	TRANSACTION	COMPANIES INDUSTRY	FINANCIAL INTERMEDIARIES	FEE (000)	FEE AS PERCENT OF DEAL
FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds	**$750,000**	Offering of 9.4% debentures, due 1988, effective September 5	**Federal National Mortgage Association**	Various dealers	$1,050	.14%
ROCKEFELLER CENTER PROPERTIES[16] sells common stock	**$750,000**	Initial public offering of 37.5 million shares, September 12	**Rockefeller Center Properties**	Goldman Sachs* Shearson Lehman Bros.	$46,875	6.25%
FEDERAL NATIONAL MORTGAGE ASSOCIATION sells bonds	**$750,000**	Offering of 10.15% debentures, due 1990, October 2	**Federal National Mortgage Association**	Various dealers	$1,490	.20%

*Lead manager

[16] Holder of convertible mortgage on New York's Rockefeller Center.

Mergers and acquisitions

Debt and equity offerings

EXPLANATORY NOTES

Deals eligible for the list include:

1. U.S. public offerings of securities (except short-term securities) by domestic and foreign corporations issued under a single prospectus or offering circular.
2. Cash tender offers by domestic corporations or by foreign corporations tendering in the U.S., including those of companies buying in their own stock.
3. Mergers or acquisitions in which the buyer and/or seller is a U.S. company or part of one. To be eligible, offerings must be effective in 1985 and tender offers must have expired during the year. Mergers and acquisitions are eligible if legally closed during the year or, when not legally closed, if the prospective buyer has paid a portion of the purchase price in cash during the year.

The list excludes short-term financings, government securities, and financings other than public offerings—such as bank borrowings and private placements.

▸VALUE OF DEAL

Amounts for cash offerings are the total amounts raised; for tenders the total amount paid. All securities issued in acquisitions or mergers are valued at the market price on the date of closing. When two companies merge through an exchange of stock to form a new company, the company whose stockholders received the largest share of the new company is treated as the buyer, and only those shares issued to stockholders of the smaller company are valued.

▸PERCENT OF BOOK VALUE

Book value calculations indicate the price paid (or amount of equity capital raised) per share as a percentage of the shareholders' equity per share of the acquired company or issuer at the end of the last quarter preceding the transaction.

▸TRANSACTION

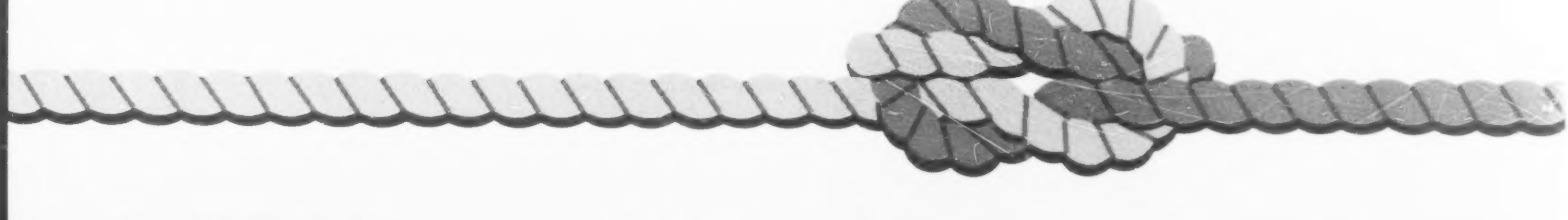
Dates under this heading are effective dates for offerings, expiration dates for tenders, and closing dates for acquisitions and mergers.

▸FINANCIAL INTERMEDIARIES

For underwritten public offerings, the co-managers are listed and the lead manager is indicated by an asterisk. In the case of acquisitions and mergers, the intermediaries are typically investment banking firms that assisted in the transaction.

▸FEE

The figures represent the amounts charged by the financial intermediaries assisting in the deals. In underwritings, part of the fee is paid to other members of the underwriting syndicate or to dealers other than the co-managers. In mergers and acquisitions, fees paid for financing services are excluded, when possible. F



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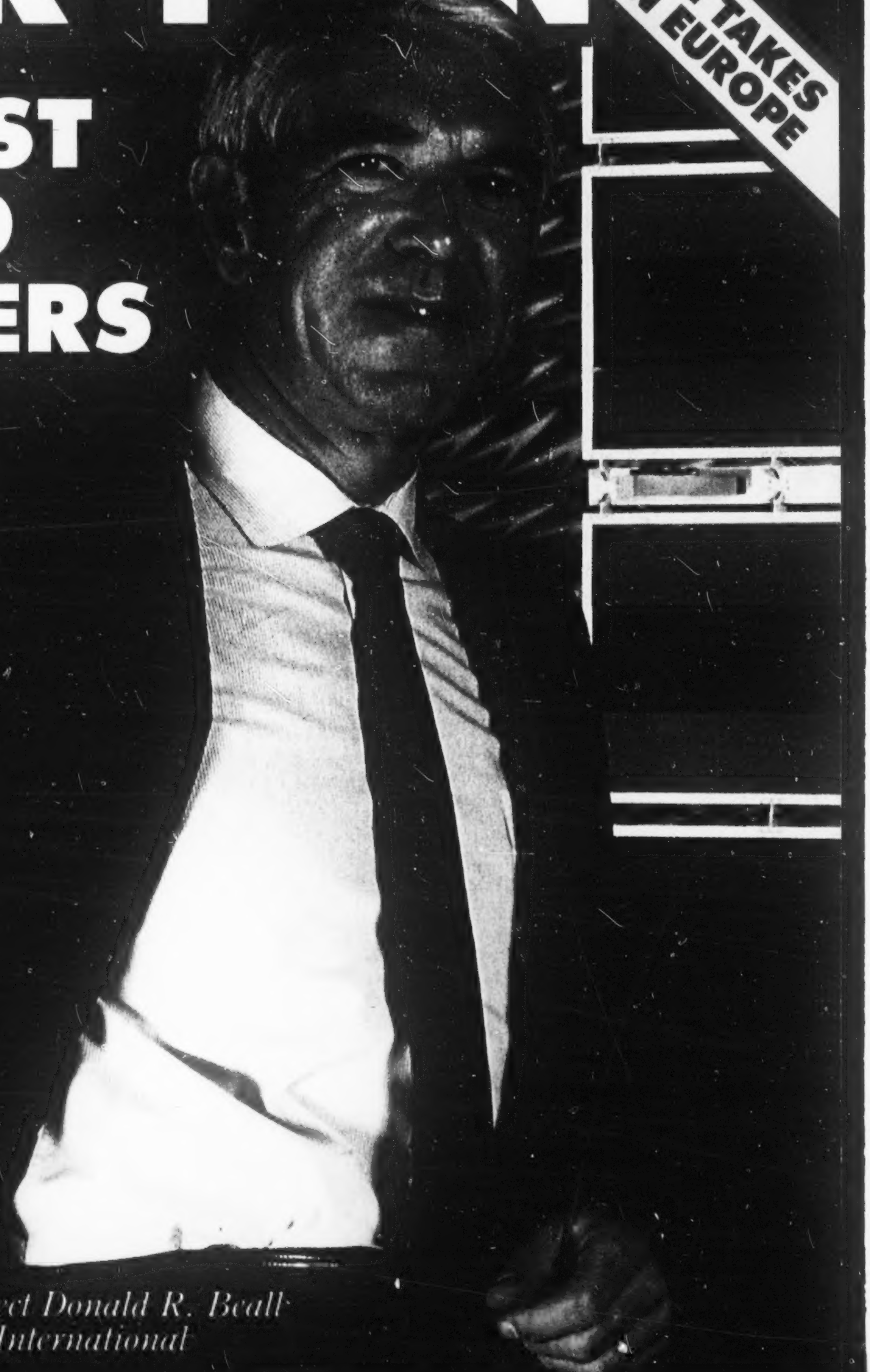
GROWTH TAKES HOLD IN EUROPE

THE MOST WANTED MANAGERS

Headhunters name their top targets in 10 industries



Prime prospect Donald R. Beall of Rockwell International

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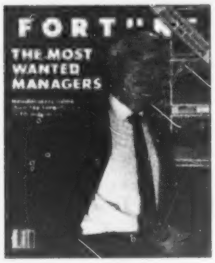
FEBRUARY 3, 1986 VOL. 113, NO. 3

FORTUNE
Money & Markets



For the cover, Joyce Ravid photographed Donald R. Beall, the most wanted executive in the aerospace and defense industry. See page 18.

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NEWS/TRENDS

Yankee come home

■ Calling Libya "a threat to the national security and foreign policy of the United States," President Reagan severed virtually all economic ties and impounded Libyan assets in the U.S. Reagan cited "irrefutable evidence" of Libyan involvement in the recent terrorist attacks that claimed 19 lives in Rome and Vienna. His order bans all trade with Libya and forbids U.S. citizens to transact any business in the country, except for humanitarian or journalistic purposes.

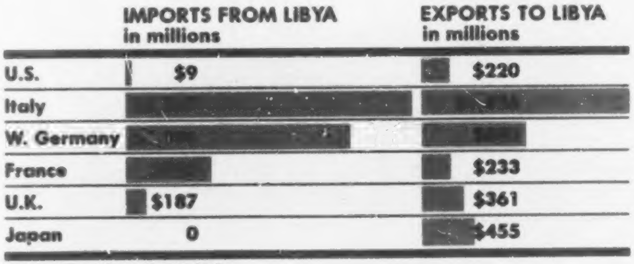
The sanctions were largely symbolic. Previous embargoes have reduced U.S.-Libyan trade to a trickle. Five American companies—**Occidental Petroleum, Amerada Hess, Conoco, Marathon Oil**, and **W.R. Grace**—have minority oil holdings, and two engineering and construction firms—**Price Brothers** and **Brown & Root**—are working on a big desert irrigation project. Most were uncertain how much getting out would cost them, but all said they would comply. The executive order would also uproot roughly 1,500 U.S. citizens in Libya. Those who defy it could face prison sentences of up to ten years on their return home.

Reagan's rhetoric found few answering echoes abroad. Japan said merely that it understood Reagan's views and would study the matter; European reactions were tepid, though Italy said it would suspend arms sales to Libya. European companies do a sizable business with Libya (see chart), and European governments have consistently opposed economic sanctions. West German government spokesman Friedhelm Ost sounded a common theme. Said he: "Past experience shows that sanctions, regardless of who imposes them, have never had the desired result and have often produced the opposite effect."

EDITOR *John Nielsen*
REPORTER *Andrew Evan Serwer*

BRAD MARKEL—CAPRI

President Reagan lashes out against Libya at his press conference.



SOURCE: INTERNATIONAL MONETARY FUND

Some links to Libya are stronger than others

The U.S. does less business with Qaddafi than its allies, some of whom depend heavily on Libyan oil. Figures are for 1984, the latest year available.

Instant exit from instant cameras

■ In a dramatic ending to a sad saga for a U.S. giant, **Eastman Kodak** is out of the instant photography business. A Washington appeals court refused to lift an injunction prohibiting Kodak from making or selling instant film or cameras. The injunction was issued last October, when a judge ruled that Kodak had infringed on seven **Polaroid** patents. Kodak is still appealing the verdict. But rather than cease operations temporarily and then reopen if a higher court rules in its favor, the company decided to shut the door forever on instant photography.

Kodak's potential losses could be enormous. It must write off capital equipment worth millions and transfer or dismiss at least 800 idled workers. It plans to give retailers credit for unsold inventories, and in an unusual move, it will allow customers to exchange their 16.5 million Kodak instant cameras (selling at discount for $20 to $65) for either one share each of Kodak common stock (recently selling at $47), a Kodak disk camera and film, or $50 in coupons good for Kodak products. But the biggest blow could come if Kodak loses the appeal. Should Polaroid win treble damages, the award could easily exceed $1 billion.

Instant photography has been a disappointing business for Kodak, accounting for only about 2% of sales. Polaroid controls three-quarters of the domestic market, which has shrunk more than 60% since its heyday in 1978. But there was bright hope for Kodak in technical applications of instant photography—in hospitals, for example, or in producing instant copies of video images—which already make up 40% of Polaroid's sales. Says Peter Enderlin, a security analyst for Smith Barney: "It's a very important and growing business. Polaroid could do very well there over the long run." Especially now that it has the business to itself.

Icahn's dubious win

■ Financier Carl C. Icahn finally won control of **Trans World Airlines** after a seven-month struggle and an 11th-hour wrangle with the pilots' and machinists' unions. Icahn's investment group is already the largest shareholder, with 48% of the 40.8 million shares outstanding. He was named chairman and

LOOKING AHEAD

GROWTH TAKES HOLD IN EUROPE

The coming year looks good. Consumers are poised to buy. German investors think the sky's the limit. In Italy even the Communists are tracking stocks.

■ *by Richard I. Kirkland Jr.*

A shopping spree *that got under way before*

WESTERN EUROPE increasingly has the look of a marathoner able to go the distance. With West Germany leading the way, business investment and consumer spending have kicked in just as export growth began to fade with the dollar's drop. The unemployment rate has finally begun to fall. Corporate profits are up and inflation down, propelling stock markets to new highs. In Milan, where prices on the *borsa* just about doubled in 1985, even the Communist party's official newspaper, *L'Unità*, has started printing daily stock quotes.

Best of all, European governments continue, slowly but steadily, to make painful structural adjustments that can put their economies on a higher growth path for years to come. After trailing the U.S. in 1983 and 1984, Europe pulled just about even last year, with an inflation-adjusted GNP growth rate of an estimated 2.4%. Forecasters think Europe can at least match that rate in 1986. If it does, Europe might ease ahead of the U.S., especially if the less optimistic predictions about U.S. growth prove true. The Reagan Administration is forecasting a robust 4% expansion for 1986; most economists are more pessimistic. FORTUNE's forecast, which is among the gloomier, projects real GNP growth in the U.S. of slightly less than 2%. Japan should still keep its edge over Europe, though it is expected to grow at a relatively sluggish 3.5% this year, compared with an estimated 5% in 1985.

Europe's progress is good news for the world economy. In its 1986 forecast, the Paris-based Organization for Economic Cooperation and Development (OECD) notes that the global recovery looks more sustainable than it did six months ago, and cites improving prospects in Europe as a major reason. With consumer demand strong, U.S. multinationals should find their European operations a boon again, particularly since earnings denominated in marks, francs, or lire are worth more than they were when the dollar was so muscular a year ago.

RESEARCH ASSOCIATE *Nancy J. Perry*

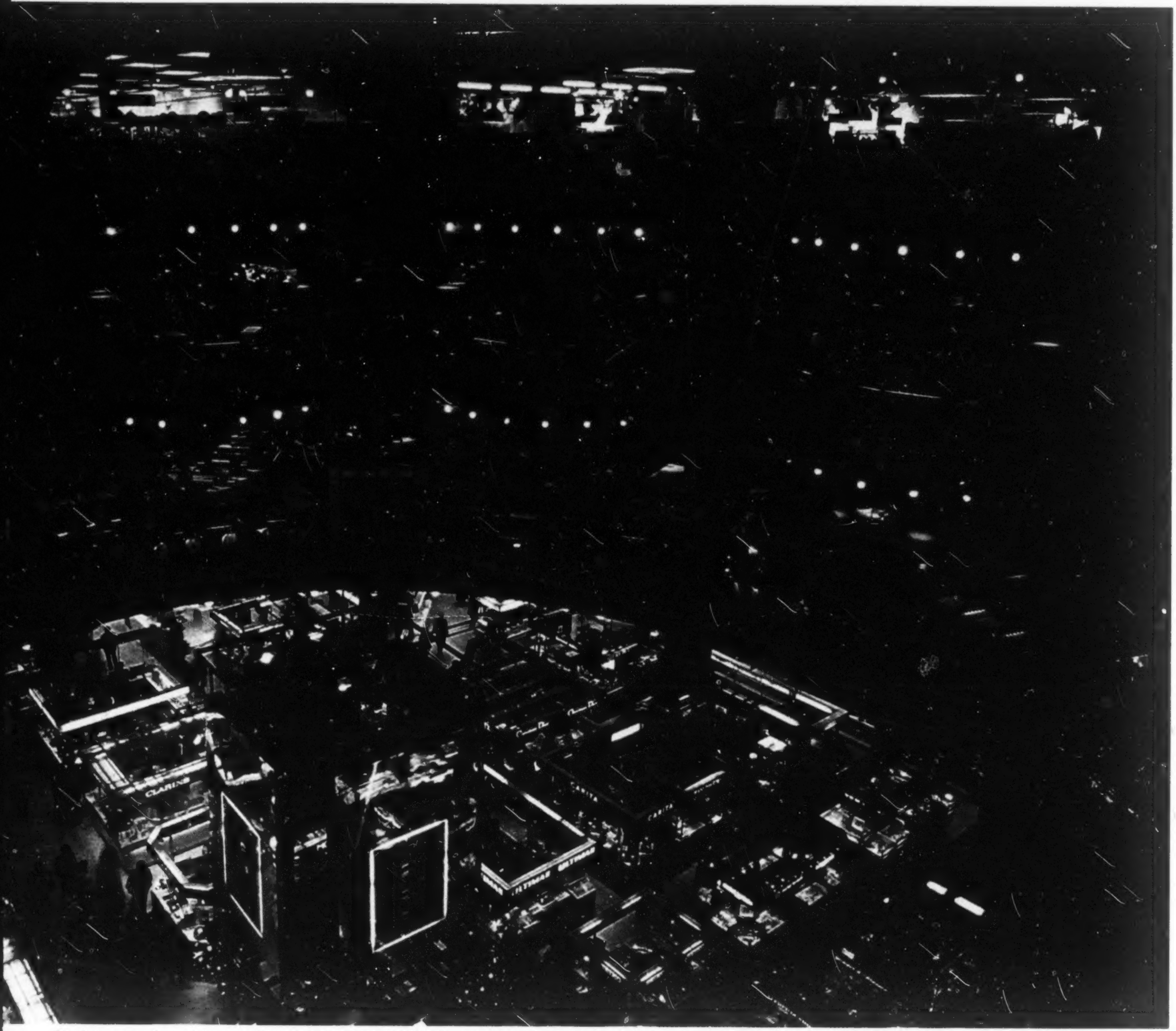
The new prosperity is spread unevenly. Swedes tightened their belts a bit as the country's growth rate slowed. Italian investors started the year feeling as bouncy as their stock market. But the boomiest mood is in West Germany. The country is enjoying a recovery whose balance is hard to beat—an inflation rate falling toward 1%, budget deficits steadily shrinking, and a big trade surplus coupled with increasing domestic demand. Most forecasters expect West Germany's real growth to average at least 3% this year, up from an estimated 2.3% in 1985. Economists at Commerzbank, the country's third-largest bank, and some others think the figure could reach 4%. The normally cautious Germans have turned almost giddy in their newfound sense that almost anything is possible. Deutsche Bank, for instance, swallowed the privately held Flick industrial empire in one $2-billion gulp and is now preparing to resell shares to the public.

The conservative coalition led by Chancellor Helmut Kohl is already feeling the political effects of the good news. For much of last year, polls showed Kohl far behind his Social Democratic rival. With elections only a year away, Kohl's coalition is now solidly in front.

Europe's mood has changed markedly. "The syndrome of defeatism is gone," says Kaspar V. Cassani, head of $11-billion-a-year IBM Europe. Unbridled faith in the future is still a distinctly American state of mind. But yesterday's "Euro-pessimism" is giving way to confidence that a lot of old attitudes are gone. "Making a profit was often thought to be a crime," says Robert Studer, head of investment banking at Union Bank of Switzerland. "Now everyone, even the unions, wants to see companies make money."

Europe still labors under large handicaps.

PHOTOGRAPH BY RICHARD KALVAR—MAGNUM



Christmas—in evidence above at the Galeries Lafayette department store in Paris—should help propel the European economy all year long.

Tax rates are generally higher than in the U.S. Deregulation of airlines, trucking, and other forms of transportation has so far been a nonstarter. The web of restrictions that govern the hiring, firing, and paying of workers remains in many places. Employers are reluctant to take on new workers who would be hard to get rid of in a slump. Though the Common Market continues to take snail-paced steps toward creating a unified European market for manufactured goods, it still functions all too often as a subsidized farming cartel. The entry this winter of Spain and Portugal, two largely agricultural countries, is bound to make things worse. Weighed down with heavy outlays for industrial subsidies and entitlements such as health care and pensions, governments spend more than half of total Common Market output vs. about 35% in the U.S. (including state and local spending) and 30% in Japan.

But Europe has finally stopped piling on new burdens. Government spending as a share of the economy shrank slightly last year after rising for more than two decades. Common Market economists expect a further glacial contraction this year. Politicians have largely resisted pressure for new subsidies and new protectionist measures, despite stubbornly high unemployment. Says John Llewellyn, chief forecaster for the OECD: "A big part of the good news from Europe is that the bad things that could have happened haven't."

A particularly bad thing that happened far too often in the 1970s was pay hikes in excess of inflation. Breaking the upward spiral of labor costs has been the keystone of Europe's economic revival. Last year the rate of increase in European manufacturing wages fell from 7.3% to 6.5%, according to the OECD. Because of the drop in the inflation rate, Common Market economists estimate that real earnings rose 1.1%. But a 2% increase in productivity safely outpaced the pay boosts, cutting unit labor costs.

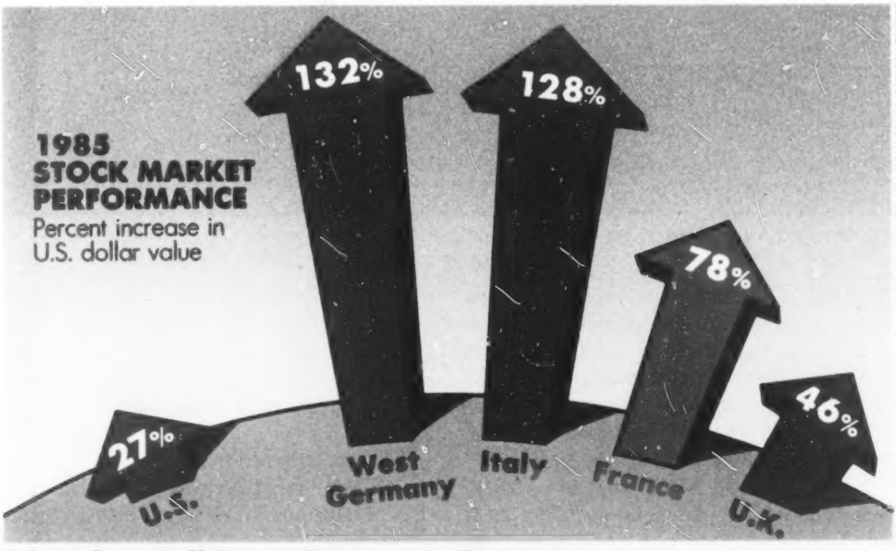
Most economists expect a repeat of that pattern in 1986, which means that the strengthening of European currencies against the dollar won't depress the competitiveness of European exports as much as it otherwise might. The risk of a wage explosion is greatest in Britain, where real wages rose over 3% last year and may climb even more than that in 1986, despite relative calm on the labor front. Both the Thatcher government and the Bank of England have begun chastising employers for granting what they consider unwarranted wage increases.

Fiscal policies across Europe remain relatively tight, while socialists and conservatives alike hew with the fervor of the converted to their newfound faith in deficit reduction. Suggestions from the Reagan Administration that Europe should achieve even faster growth by cutting taxes deeply and letting deficits creep up a bit are falling on deaf ears. Says Gilbert de Botton, head of London-based Global Asset Management, a highly rated money management firm: "European governments are determined to get off the toboggan ride of stop-go economic policies."

A further drop in Europe's inflation rate is almost certain. Because oil is priced in dollars, Europe didn't get much benefit from falling oil prices while the dollar rose against European currencies. The dollar began to drop last spring and got another push in September when U.S. Treasury Secretary James Baker III brought finance ministers from Europe and Japan to New York's Plaza Hotel to plan coordinated intervention. At the time Europeans were paying 10% more for a barrel of oil than at the end of 1982. Today Europeans pay 10% less than in 1982, thanks to the dollar's post-Plaza decline.

Assuming no change from year-end exchange rates or oil prices, the OECD projects that Europe's Big Four—Britain, West Germany, France, and Italy—will lop 1.5 percentage points off the 5.3% inflation rate they averaged in 1985. If oil prices and the dollar keep drifting down, as seems likely, European inflation and interest rates could drop even more and investment and real incomes would rise sharply.

With lower inflation putting money in their pockets, European consumers are off on their biggest buying binge in more than five years. In West Germany, for example, the rate of growth of consumer spending in 1986 is expected to be more than double that of last year. To cash in on this shopping spree, London brokerage houses are touting the shares of retailers including France's Carrefour, which owns a string of supersize supermarkets; West Germany's Hussel Holding, whose specialty shops peddle everything from perfume to sporting goods; and Darty, a French electronic appliance chain.



SOURCE: MORGAN STANLEY CAPITAL INTERNATIONAL PERSPECTIVE

Blasting Off From Europe's Bourses

If U.S. stocks hit the moon last year, some of Europe's reached Mars. The chart computes prices in dollars, which exaggerates their rise because European currencies strengthened. In local currencies West German shares climbed 81% and Italy's 98%, while France's rose 40% and the U.K.'s 18%.

Some governments will also allow workers to take home a bit more pay this year. In West Germany the Kohl government has approved a modest two-step income tax cut. The first decrease will keep about $4.5 billion in taxpayers' pockets through a variety of deductions and rate cuts. The cut in 1988 will amount to about $4 billion. French workers have received tax breaks worth about $6.5 billion, courtesy of Socialist President François Mitterrand, whose term in office expires in 1988. Further cuts could be forthcoming if, as expected, French voters return control of the legislature to the right in the March election. In Britain, Prime Minister Margaret Thatcher, who must call an election sometime before June 1988, wants income taxes lowered this year, though falling North Sea oil prices are battering government revenues. London stockbrokers are betting on a tax cut totaling around $3 billion.

FOR EUROPEAN INDUSTRY, stronger domestic demand should ease the pain of shrinking profit margins on exports. Soaring profits in banking, electrical equipment, and chemicals, among other industries, have already boosted corporate earnings in Europe to the highest levels since the 1973 OPEC oil shock. After years of big losses, Italian chemical giant Montedison expects to report what it calls "a substantial profit" for the year just ended. Security analysts think the company will earn around $60 million. Thyssen, the West German industrial conglomerate, earned an estimated $250 million in the fiscal year that ended last September, up sharply from the year before. The company is paying a dividend for the first time in three years. West German automakers made money coming and going, thanks to strong demand at home and abroad. Analysts expect Daimler-Benz to report a 30% increase in profits to more than $500 million for 1985. Volkswagen could net as much as $250 million, more than double 1984's profit.

Rising profits have sparked a much needed European capital investment boom. In the Common Market last year, capital spending grew more than twice as fast as the year before, after adjustment for inflation. Says Brendan Brown, an international economist with the London brokerage firm of Phillips & Drew: "A year ago I don't think anyone believed investment spending would have the force we're seeing now." Among Europe's major economies, capital spending climbed 12% in Italy and 11% in West Germany. It

HANS VERHUFEN

Booming capital investment *has workers at Gildemeister, a West German computerized machine toolmaker, scrambling to meet demand.*

ought to increase 7% to 9% in both countries this year.

As in past European recoveries, companies continue to buy robots and other equipment that improves productivity while adding no new jobs. But for the first time in years part of capital investment is going into job-creating production capacity. In West Germany manufacturing employment is growing again after a ten-year decline. It is also on the rise in the Netherlands, Denmark, and Norway.

Employment growth has been particularly buoyant among electrical equipment manufacturers, which are riding the global trend toward merging metal bending with microelectronics. Orders are up 70% over last year at Thyssen's machine tool subsidiary. In a recent survey 40% of West German electrical companies said they planned to expand capacity, vs. 6% three years ago.

The OECD, which as recently as September was predicting another small increase in European unemployment, now forecasts that the unemployment rate will stop growing this year for the first time since 1973. More optimistically, Hans Mast, chief economist for Credit Suisse, Switzerland's third-largest bank, projects an actual fall in Western European unemployment from 11.3% to 10.5%.

International competition is forcing rapid deregulation of Europe's stock markets (FORTUNE, October 14). More vigorous markets should gradually lower Europe's high cost of capital, particularly for the small firms that tend to create the most jobs. In Britain venture capital investment, spurred by various tax breaks, has soared from about $20 million in 1979 to over $300 million last year, when more than 175,000 new businesses started up.

BRITAIN and West Germany lead the way in making Europe's labor markets less rigid. By encouraging unions to take strike votes by a secret ballot of all members rather than by a show of hands at mass meetings, the Thatcher government undercut the clout of some of Europe's most bloody-minded labor barons. In December the Kohl government proposed controversial legislation that would cut off unemployment payments to workers laid off by strikes they did not call. Outraged union leaders protest that this would strain worker solidarity and make strikes harder to sustain.

Europe's steady improvement has cheered even one of its more prominent pessimists. Several years ago Herbert Giersch, president of the Kiel Institute for World Economics, coined the word "Eurosclerosis" to describe Europe's economic malady of high taxes, heavy government spending, overregulation, and rigid labor rules. Now he is increasingly persuaded that the disease is in remission, assuming governments stay on their present course. "In terms of invigorating its growth, Europe is still five to ten years behind the U.S.," Giersch says. "But over the longer term I can see Europe catching up."

There seems little chance that voters will soon turn again to the kind of interventionist governments that so stifled European industry. In recent elections in Belgium and Norway, voters opted to keep conservatives in power. In France conservatives appear likely to march back into office with a vision known as *l'état minimum*, or minimal government, a far cry from the statism of their old hero Charles de Gaulle. Even Margaret Thatcher, who launched Europe's turn to the right in 1979, looks less vulnerable than she did a year ago. If political leaders can continue to deliver on their pro-market promises and the world economy avoids major calamities, Europe's three-year-old recovery may just run and run and run. ■

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HOW TO FILL
LOW-LEVEL JOBS

CAPITALIST DYNASTIES

Families that run big public companies

Seagram Chairman Edgar Bronfman Sr. and newly chosen successor Edgar Jr.

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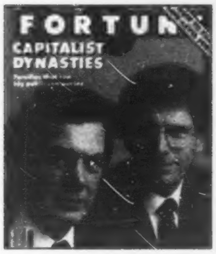

For the cover, Duane Michals photographed the present and future chiefs of one of the biggest business dynasties. See pages 22 and 28.

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BUSINESS DYNASTIES FACE THE RAIDERS

Time was when families that control big public companies and pass the top job along like an heirloom seemed takeover-proof. No longer. The threat of raiders is forcing some to spruce up their returns. That can mean putting an outsider in charge.

■ *by Colin Leinster*

The first Quick *at discount broker Quick & Reilly was Leslie C. Jr. Then came son Leslie III, 33, a vice president, Thomas, 31, in charge of branches . . .*

GEORGE III, John IV, August III and IV . . . The names smack of European royalty or perhaps occupants of the Vatican. But these are members of a New World nobility: the patriarchs and scions of families that have managed big publicly held U.S. companies through successive generations.

The aristocracy may be threatened soon. Family-run companies, especially the biggest and oldest, could well be the corporate raiders' next quarries, according to several sources in the financial community. An executive with a major New York investment bank says, "I've got several on my hit list." A Chicago money manager adds, "A lot of old-line family businesses may think nothing could happen to them, but these days they could be vulnerable."

Families dominate many of the hugest publicly held U.S. enterprises. For example:

- A second generation of McDonnells runs McDonnell Douglas, the aerospace giant that was No. 34 on the FORTUNE 500 last year with 1984 sales of $9.7 billion. A member of the third generation is on the way up.
- Members of the Busch family have headed Anheuser-Busch, the brewing behemoth (No. 53; sales: $6.5 billion), for four generations. August Busch IV, a member of the fifth generation, recently started at the company.
- At Weyerhaeuser, the timber company (No. 66; sales: $5.5 billion), nine direct descendants of the founding families have taken turns at the helm. The current C.E.O., George Weyerhaeuser Jr., represents the fourth generation of his family to run the company, and nephew John IV heads a distribution operation.

Family-run corporations do not consistently perform better than competitors, or worse (see box). But would-be acquirers think the market undervalues many because the companies have long seemed takeover-proof. If family members own a sizable chunk of the stock or have peopled the board of directors with friends and relatives, what chance does a raider have? The raiders' latest thinking: a lot more chance than most people suppose.

Procter & Gamble's takeover of Richardson-Vicks last October sparked the new thinking. The Richardson family, which had managed the company for four generations and with insiders held 32% of the shares, was united against selling. But many of those shares were held in family trusts established by previous generations to provide income for descendants. The trustees who managed the trusts had a fiduciary duty under law to vote in favor of enriching the beneficiaries. So when P&G offered $69 a share less than a month after Richardson-Vicks stock had been trading at around $37, the trustees felt they had to take the offer. Though the family received more than $400 million, the Richardson dynasty fell.

Knowing which dynastic companies are susceptible to raiding through trusts is not easy; companies need not reveal their owners' trust arrangements. But acquirers have other methods, such as exploiting family squabbles. Even without prodding, internal fights fractured the Bingham family's privately held Louisville newspaper and broadcasting empire, which was put up for sale in January. One well-known raider, who asked not to be named, says that a 20% family stake without extensive trusts would normally constitute an effective defense. But, he adds with a chuckle, "if two cousins hate each other, that makes my job a lot easier."

RESEARCH ASSOCIATE *John Paul Newport Jr.*

Money manager William J. Reik Jr., a managing director of Paine Webber's Mitchell Hutchins Asset Management subsidiary, has done splendidly for himself and his clients by investing in family businesses that were later taken over. For example, he invested in the New Yorker Magazine Inc., the Fleischmann family's domain, which Advance Publications Inc. bought last year. Reik is such a fan of family-controlled, family-managed businesses that he has persuaded his son, William J. Reik III, to join his staff as a researcher and account manager.

Despite his success anticipating takeovers, Reik likes family companies mainly because he thinks they are good long-term investments. He says family-run companies are directed with a view to ensuring value over generations. James O'Toole, a University of Southern California business professor, agrees. He believes managing for the long term is a ubiquitous trait of family-run companies. He admiringly cites the Weyerhaeuser family's creed: "This not for us or for our children, but for our grandchildren." That attitude, O'Toole adds, influences how such families view those who buy their company's stock: "They care about investors, not speculators."

But other investment experts think concern for the long term can be an excuse for indulging whims and shortchanging the present. George Adler, a security analyst at Smith Barney, is acid on the subject of Weyerhaeuser: "The company has been run paternalistically and expensively, and the bottom line reflects that." The company's feeble return on shareholders' equity, he says, is not worse only because timber is on the books at the 1913 acquisition price. Adler argues that Chief Executive George Weyerhaeuser has not cared much about stock prices and also is sometimes disdainful of security analysts—notorious short-termers. In 1984 more than 100 analysts traveled to Seattle, where Weyerhaeuser is based, to meet with executives of local companies. George Weyerhaeuser failed to turn up. The company says he is worrying more about the near term these days. Weyerhaeuser's total return to investors—stock price appreciation plus dividends—over the past ten years was 1.2% a year, compared with an average of 13.4% in the forest products industry.

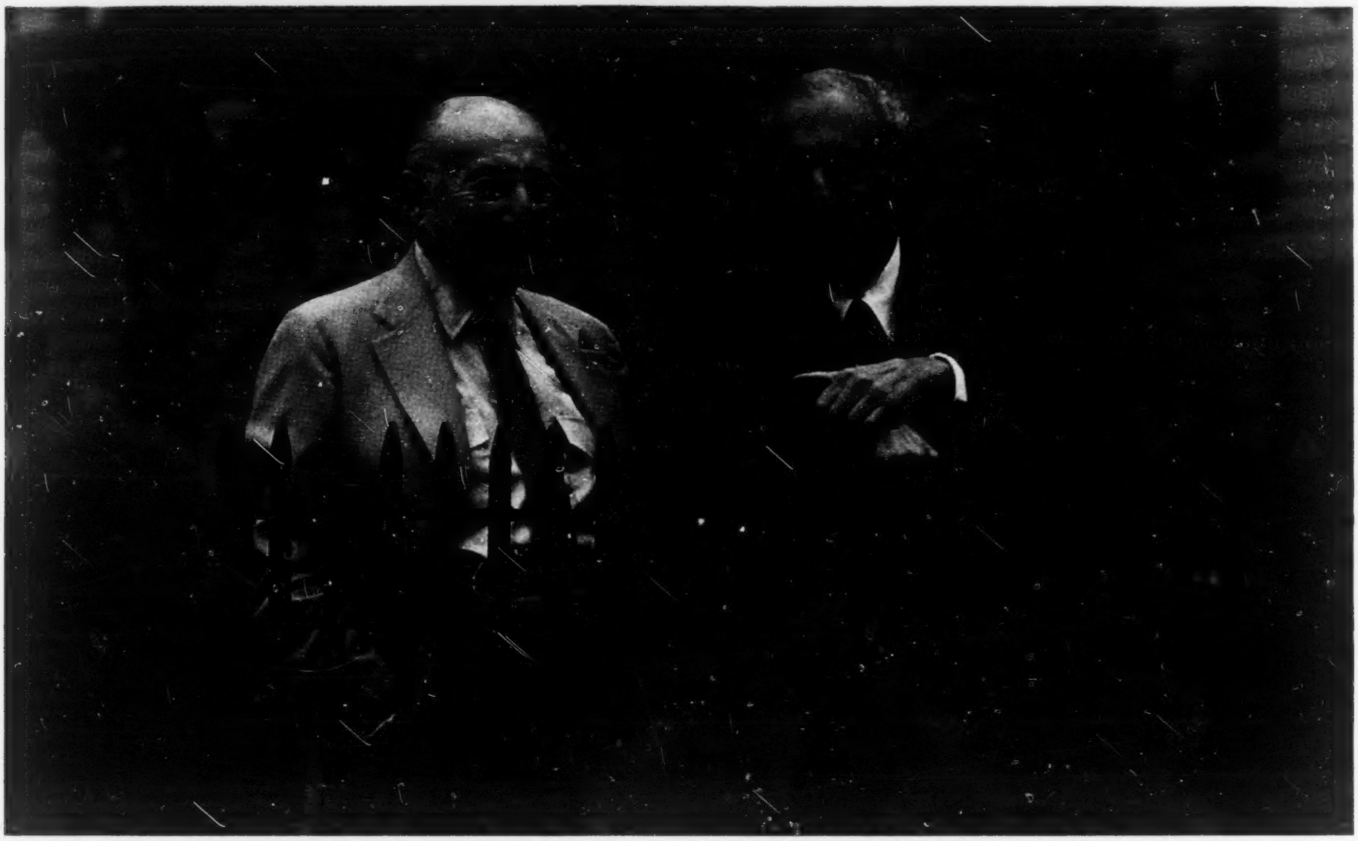
The growing takeover threat may well drag many dynasties' concerns nearer the present. Reason: the hardest but surest way

Peter, 30, who runs a clearing house operation . . .

Christopher, 28, a trading specialist . . .

and daughter Nancy, 24, a broker in Boston.

PHOTOGRAPHS BY DUANE MICHALS



The line ends *after four generations at Phillips-Van Heusen, a New York City shirt manufacturer. President Lawrence Phillips (right, with his father, Seymour, the chairman) says he "closed the option" for his son, David, 26, to join the business because "I thought he'd attain greater happiness working elsewhere." New York's Phillips-Beth Israel School of Nursing, which the family has long supported, is in the background.*

to keep control is through superior financial performance. Sanford McDonnell, 63, owns a mere 0.24% of McDonnell Douglas, the aerospace company that his uncle founded and which he now runs. Even with the holdings of other family members, a family foundation, and two charitable trusts thrown in, the McDonnells control less than 14% of the outstanding shares. But McDonnell looks secure because he has proved a particularly successful chief executive. In the face of wide skepticism in the Seventies and early Eighties, he stuck to his faith in the profitability of making commercial airliners and is looking smart for doing so.

AUGUST BUSCH III, chief executive of Anheuser-Busch, which his great-grandfather started running more than a century ago, owns with his relatives only 20% to 24% of the company. But as chief of the only U.S. brewer with nationwide distribution that is increasing market share, he is adored by shareholders. Says Emanuel Goldman, a beverage industry analyst at Montgomery Securities, "He is one of the best executives in the beer business, irrespective of his name."

McDonnell and Busch, like most of their counterparts in other dynasties, were prepared for the top job from an early age. Busch did not even finish college, instead devoting himself to becoming a brewmaster. But being the anointed one is not always easy, admits Gary Rollins, 41. His father, Wayne Rollins, 73, in 1948 co-founded Rollins Inc., which began as a Delaware radio station and grew into a $500-million-a-year empire with interests in broadcasting, oil field services, and pest control (including Orkin, the industry leader). "I feel the relationship with my father forced me to exert myself more so my fellow workers would recognize my effort and ability rather than my heritage," recalls Gary, president of Rollins. "I was determined not to fit the standard-issue image of the boss's son." He concedes that "my family relationship later probably enabled me to get some job assignments." Observes Gary's brother Randall, 54, president of Rollins Communications, which was spun off in 1984: "I think I had it harder and easier because I was the son of the founder and chairman. Harder because I think any father expects more from his son than from others and because some employees think many others should have been given the job. Easier because you know without a shadow of a doubt that your teacher, adviser, and boss has only your best interests at heart."

Some heirs were drawn rather than pushed into the business. For Stephen Myers, 42, chief executive of Myers Industries, an Akron company that equips tire shops and makes plastic containers (1984 sales: $86 million), education in company ways began early: as a young boy he accompanied his father, Louis Myers, chairman and co-founder, to the office on Saturdays. "Mostly that meant I got a doughnut for breakfast instead of cornflakes or eggs," he recalls. Though he worked at the company during school vacations, he says, "I never had any intention of going into the business world." Instead he thought about "teaching, photography,

"I feel blessed," *says Jacob Sapirstein, 101 (center, near his Miami Beach winter home), of his great-grandsons' ambition to join American Greetings, the company he started by peddling postcards from a horse-drawn wagon in 1906. Recent visitors included (from left) great-grandson Jeffrey, grandson-in-law and company President Morry Weiss, great-grandsons Gary and Zev, and son Irving Stone, the chairman.*

something." He even considered joining the FBI. To finance a career in photography, he joined the company "temporarily," he says. Ten years later, after a variety of increasingly responsible jobs, "I realized, gee, how time flies when you're having fun. I had become enchanted by it all."

J. Willard Marriott Jr., 53, whose late father founded the Marriott hotel chain (1985 sales: $4.2 billion), says he had a "100% free choice" about joining his father's business, of which he is now chairman. "My dad didn't push me at all. I didn't have much option, though, for other careers. I'm not athletic, so sports were out. I was never very good with my hands, so I couldn't be a surgeon. I took one of those aptitude tests in the seventh grade, and they said, 'You're not much good at anything, so why don't you go into business?' " He did, joining the family company full-time at age 24.

Modern heirs seem less likely to plunge directly into the family enterprise. Instead they may first get a few years' experience elsewhere, giving them a wider view of the world and perhaps lessening resentment by co-workers when they join their father's company. At American Greetings Corp., a $1-billion-a-year card and toy company, all of the youngest generation plan to join the business, but none has yet. Gary Weiss, 23, is an accountant at Ernst & Whinney in New York City, and his brother Jeffrey, 22, is a management trainee at Macy's department store there. (Zev, 19, is a college sophomore, and Elie, 13, is in grade school.) That's fine with their father, President Morry Weiss, 45, their grandfather, Chairman Irving Stone, 76, and their great-grandfather, founder Jacob Sapirstein, 101, who says he feels "blessed beyond my expectations."

BUT IF A FAMILY SCION, no matter how broadly experienced, is destined for the top job, can a dynastic company attract bright and ambitious outsiders? Edgar Bronfman Sr., chief executive of Seagram Co., thinks his company can by "treating our people very well"; he acknowledges that outsiders have no shot at the top (see following story). Others think that's nonsense. "It's not possible to attract the best outside people if they perceive that they'll be preempted by family members for top jobs," says Wallace Barnes, 59, whose great-grandfather founded Barnes Group (1985 sales: $432 million), which makes springs and aerospace components and distributes nuts and bolts. Barnes, who with his family has 35% of the stock, decided to eliminate the worry by hiring an outsider to succeed him one day as chief executive.

Laurence and Preston Robert Tisch, the brothers who run Loews Corp., share Barnes's worry. They recoil at the suggestion that they might be considered a dynasty. Yet the Tisch family owns 29% of the company, and Larry has two sons working for the company, Bob one. Even so, insists Bob: "Being a Tisch is not enough around here."

Professional managers are skeptical of such claims. Wallace Barnes found it "a bit of a shock" that management candidates, even after assurances they would be in line for the top job, "always inquired in great detail about

"I **never had any intention** *of going into the business world," says Stephen Myers (left), chief executive of Myers Industries, an Akron company that equips tire shops and makes plastic containers. But during school vacations he worked at the company, which his father, Louis (right), cofounded, then took a job "temporarily" to finance a planned career in photography. The elder Myers hopes his grandchildren will join the company.*

BEING THE BOSS'S SON IS NOT ENOUGH

■ Investors who bet on family-managed businesses get no guarantees. Over ten years, ten family-run giants show dramatically different total returns to investors—changes in the stock price plus dividends. The best performers buttress the argument that companies with a tradition of family control can shrug off immediate problems and manage for the long term. Wang Laboratories, for example, did badly last year but excelled over the decade. Despite their managers' presumed profound interest in the value of the stock, many of the biggest dynastic companies have long trailed their competitors. The laggards' performance may suggest that, by keeping management in the family for generations, a company is not getting the best management. Says a New York investment banker: "Sometimes you have to wonder whether the blood is getting thinner."

COMPANY	MARKET VALUE in billions 2/18/86	FAMILY Percentage of stock it controls	RETURN ON EQUITY 1985 Industry average (estimated)	TOTAL RETURN TO INVESTORS 1975-85 avg. Industry average
Anheuser-Busch	**$6.0**	**Busch** 20-24%	**20.6%** 8.8%	**17.1%** 17.0%
Loews	**$5.5**	**Tisch** 29%	**15.0%**[1] 10.0%	**36.7%** 18.8%
Motorola	**$5.4**	**Galvin** 7%	**3.2%** 7.4%	**12.9%** 17.9%
Seagram	**$4.9**	**Bronfman** 39%	**9.0%**[1,2] 16.5%[3]	**21.1%** 24.8%[3]
Weyerhaeuser	**$4.5**	**Weyerhaeuser** 10-12%	**5.8%** 9.5%	**1.2%** 13.4%
Marriott	**$3.4**	**Marriott** 21%	**19.7%** 14.0%	**22.2%** 18.2%
McDonnell Douglas	**$3.2**	**McDonnell** 14%	**13.5%** 18.6%	**20.0%** 26.4%
Corning Glass Works	**$3.0**	**Houghton** about 20%	**11.2%** 10.6%	**14.1%** 14.6%
Wang Laboratories	**$2.8**	**Wang** 38%	**−5.0%** 10.9%	**44.5%** 18.0%
Safeway Stores	**$2.2**	**Magowan** less than 1%	**14.2%** 16.5%	**9.8%** 21.2%

[1] Value Line estimate. [2] For fiscal year ended January 31, 1986. [3] Figure is for Brown-Forman, the only other publicly held distiller.

We're no dynasty, *say Preston Robert Tisch (foreground left) and his brother, Laurence (right), who turned a resort hotel into Loews Corp., a financial conglomerate. One of Bob's children, Jonathan (rear left), and two of Laurence's, Andrew and James, work for the company. But "being a Tisch is not enough around here," insists Bob. The brothers fear that even looking like a dynasty will scare away outside talent.*

my children and my cousin's children and their career plans." You can't blame them. Virgil Baldi, a partner in the executive recruiting firm Korn/Ferry International, says, "I've seen owners commit themselves to hiring outside management when they don't really mean it, and I've seen many executives chewed up."

Peter Davis, director of executive education at the University of Pennsylvania's Wharton School, thinks many family managers will have to consider leaving management and controlling the company through the board if their companies are to stay competitive. The family can choose the best managers, whoever they may be, and increase its chances of keeping control. Raymond Corp., a $113-million-a-year manufacturer of forklift trucks and other factory and warehouse distribution equipment, prepared for the switch in 1984. George Raymond Jr., 64, whose father bought the ironworks that evolved into Raymond Corp., says he talked to his two sons, George III, 39, and Stephen, 36, about the future of the company and his intention to bring in outside management. He bluntly explains: "I'm not sure whether either really has his heart set on succeeding me, or even if they have the capability. What happens to more than 1,000 employees is important to me. I'd love to see one or both stay"—each is a middle manager—"but not at the expense of the company." He hired William R. Webber, a 28-year veteran of General Electric, as chief operating officer with the promise he would be C.E.O. by 1987 "if he didn't stub his toe." Young dynasties, still full of hope and promise, have less reason to look outside. Leslie C. Quick Jr., who launched the Quick & Reilly Group Inc. discount brokerage in 1974 and took it public in 1983, has hired five of his seven children full-time and says, "The kids do a good job."

EVEN WITH standout performance, no dynasty is forever. If it avoids raiders and ruinous internal wars, it may just die out. Hasbro Inc., a toymaker, has been run by three generations of Hassenfeld brothers, but the current pair, Stephen, 44, and Alan, 37, are both unmarried. Or a dynasty may end when a patriarch decides it constricts lives. Lawrence Phillips, 58, president of the Phillips-Van Heusen shirt company (1984 sales: $591 million) and the founder's great-grandson, recalls ruefully, "I always knew I would work for the company. Early in my career I knew I was being overpaid and overpromoted and intensely watched by all the other executives. I had to be holier than the Pope and work harder and more conscientiously than anyone else." Phillips decided when his son David was born 26 years ago that he would have a different life: "I closed the option for him because I thought he could attain greater happiness by making his own way in life." Concurs Lawrence's father, Seymour, the company chairman: "A fifth generation is too long a family tree."

Newly bold raiders may change the characters of dynasties that carry on by forcing them to concentrate on the near term. While in some cases disrupting a tradition of generations, the change could be just what some family-run enterprises need. It's hard to see the harm in dynasties that control public companies acting as if their interests are the same as the other shareholders'.

MARCH 31, 1986

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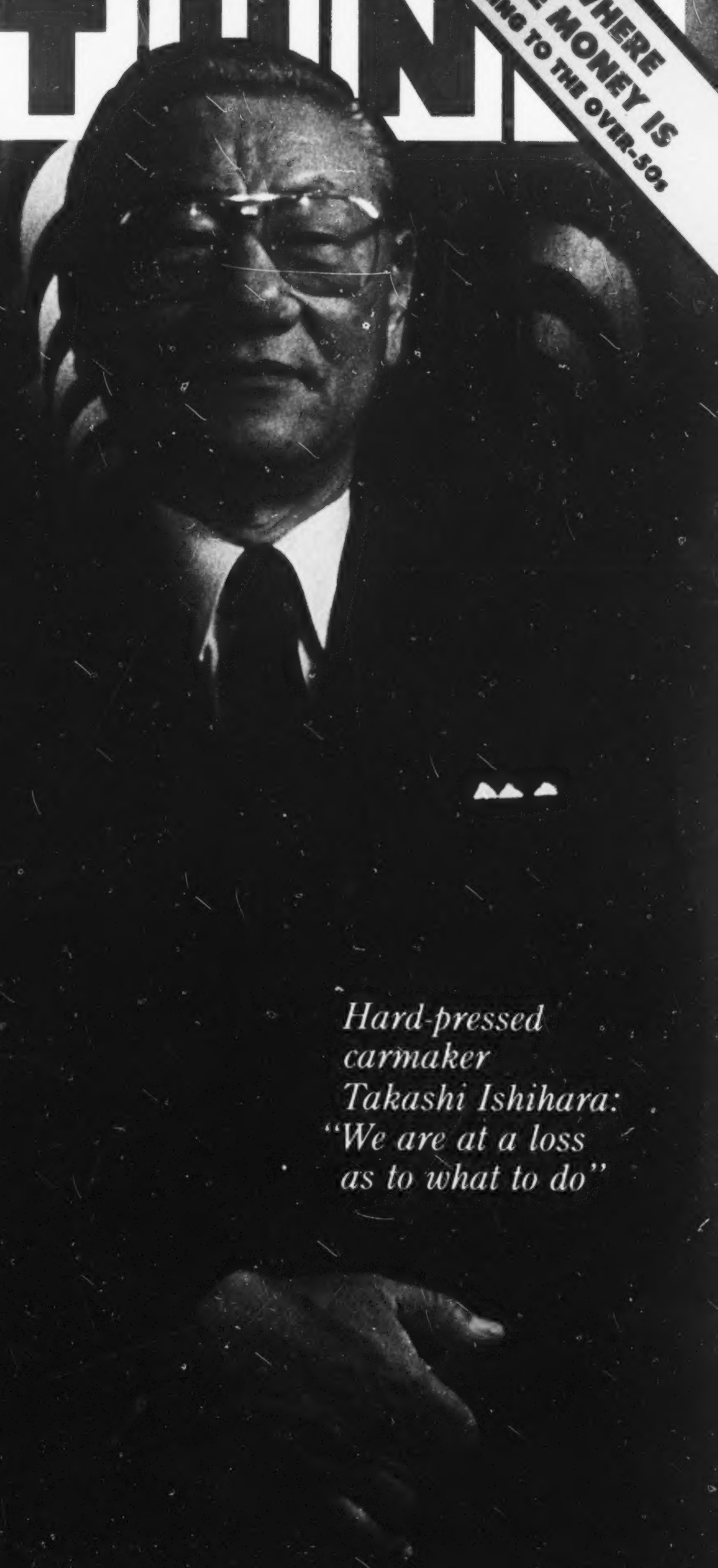
WHERE THE MONEY IS
SELLING TO THE OVER-50s

JAPAN SLOWS DOWN

A rare opportunity for the U.S.



Hard-pressed carmaker Takashi Ishihara: "We are at a loss as to what to do"

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MARCH 31, 1986

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For the cover, Ethan Hoffman of the Archive photo agency shot the chairman of Nissan Motor Co., which is hurting from the strong yen. See page 20.

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MANAGING

WHY BIGGER IS BETTER IN THE AIRLINE WARS

In their sometimes desperate haste to merge, the major airlines are trying to position themselves for a new era of air transport in the U.S. The supercarriers of tomorrow will benefit from economies of scale. But more important, they will control turf.

■ *by Kenneth Labich*

LIKE BIRDS OF PREY, the highfliers of the U.S. airline industry are streaking down from the sky to seize the weak and helpless. The frenzy is likely to reshape air transport in the U.S. faster and more radically than anyone had expected only a few months ago. The acquiring airlines are counting on getting significant economies of scale from their takeovers, but those are almost the least of the incentives. "To continue to exist in this industry, mass is a critical quality," says James V. O'Donnell, vice president of marketing services at Continental Airlines. The long-term goal of the acquisition-minded airline is to become a supercarrier with strategic advantages that will make it impregnable in the territories it serves.

United began the recent flurry of dealmaking less than a year ago by plucking off Pan Am's rich and fast-growing Asian routes. People Express, the pioneering cut-rate carrier, then acquired faltering Frontier. Northwest captured Republic. Texas Air, the owner of Continental and New York Air, made an apparently successful bid for Eastern, which was on the brink of technically defaulting on $2.5 billion in loans. Finally, Trans World Airlines, only recently taken over by New York investor Carl Icahn, announced it was attempting to acquire Ozark.

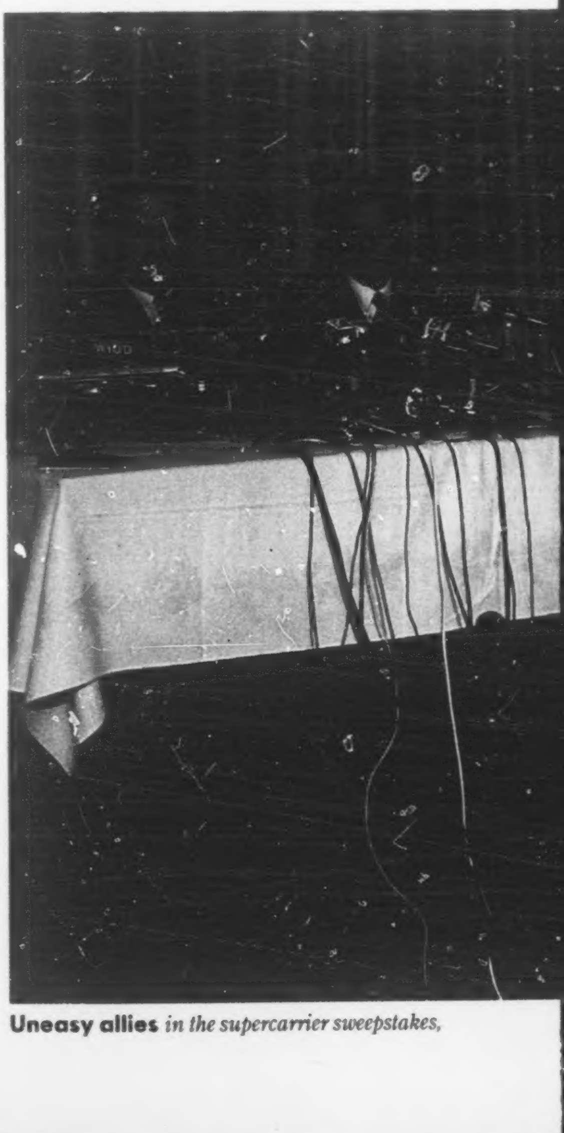
The buying spree has at times an air of desperation. "We saw the industry was shaking down and coalescing," says Larry Martin, a People Express veteran recently installed as Frontier's president. "We felt we had to do something or be left behind."

The action is not over yet. American Airlines was reportedly targeted for takeover by Wall Street investors in February, and carriers such as Western and USAir are generally considered potential players. Pan Am, still financially shaky, may also end up on the block. The industry's major analysts predict that ultimately only a half dozen or so big national carriers will still be flying, along with several strong regional airlines and a scattering of small commuter operations.

Economies of scale unquestionably provide plenty of incentive for merger. With oil prices still heading down, the carriers are less eager to buy fuel-efficient but costly new planes. Instead, for the price of three or four new 747s, a carrier can get an entire fleet of used aircraft when it buys out a competitor. TWA will pick up 50 DC-9s with the purchase of Ozark. Acquiring the same number of seats in new planes would have cost about $775 million, more than three times the price. For all his economic woes, Eastern Chairman Frank Borman has amassed a formidable array of 290 planes, ranging from 128 727s to 34 Airbus A-300s.

Combining fleets can also make for more efficient operations. Because Republic has few large planes, it is forced to schedule 19 flights a day that are essentially duplicates. Each goes to the same destination at exactly the same time as another Republic flight. But Northwest has a large fleet of big jets, some underutilized. The combined airlines can now schedule big jets to take care of passengers on those duplicate flights, reducing the number of flights and slashing costs. The new arrangement will also free up 20 to 25

RESEARCH ASSOCIATE *David Kirkpatrick*



Uneasy allies *in the supercarrier sweepstakes,* planes for use in expanding schedules elsewhere or opening new routes.

Airlines expect further savings from reduced overhead in ground operations. Says George James, president of Airline Economics Inc., a Washington, D.C., consulting firm, "You may have had two flights a day going into an airport and had to put in ticket agents and other people. If you have four flights, you can utilize those folks more efficiently."

The economies of combining operations will not come quickly in all cases. People Express, operated with a kind of messianic fervor by charismatic Chairman Donald Burr, is a far different kind of operation from Frontier, a more traditional, unionized carrier. "You are talking about merging two very different corporate cultures," says John V. Pincavage, airline analyst at Paine Webber. Melding the two will take time. Texas Air Chairman Frank Lorenzo could have trouble combining Eastern's unionized labor force with his non-union Continental and New York Air crews, particularly since many of the Continental workers took the jobs of union members when Lorenzo put the airline into bankruptcy in 1983 and walked away from his labor contracts. Carl Icahn might want to keep Ozark and TWA staffs apart, particularly since the TWA cabin attendants went on strike in early March, at least until he is able to squeeze some concessions from Ozark's unions.

Once the players combine their operations, however, the game for strategic dominance will begin in earnest. Airline chief executives currently operate like rival warlords who control sectors of a vast battlefield and deploy their forces on occasional excursions into hostile territory. Every big airline has at least one major hub city, where most maintenance facilities are typically located and a large number of flights originate. These hubs, the central strength today of successful airline operations, give carriers the ability to fill the greatest possible number of seats on each flight. For example, an airline might schedule ten or more flights to arrive at its hub from various feeder airports within a one-hour period. Drawing on this flock of arriving passengers, the airline could then fill up a couple of jumbo jets for the lucrative trips to major cities.

JOSE A. FERNANDEZ—WOODFIN CAMP

Eastern Chairman Frank Borman and Texas Air chief Frank Lorenzo explain why Eastern is selling out.

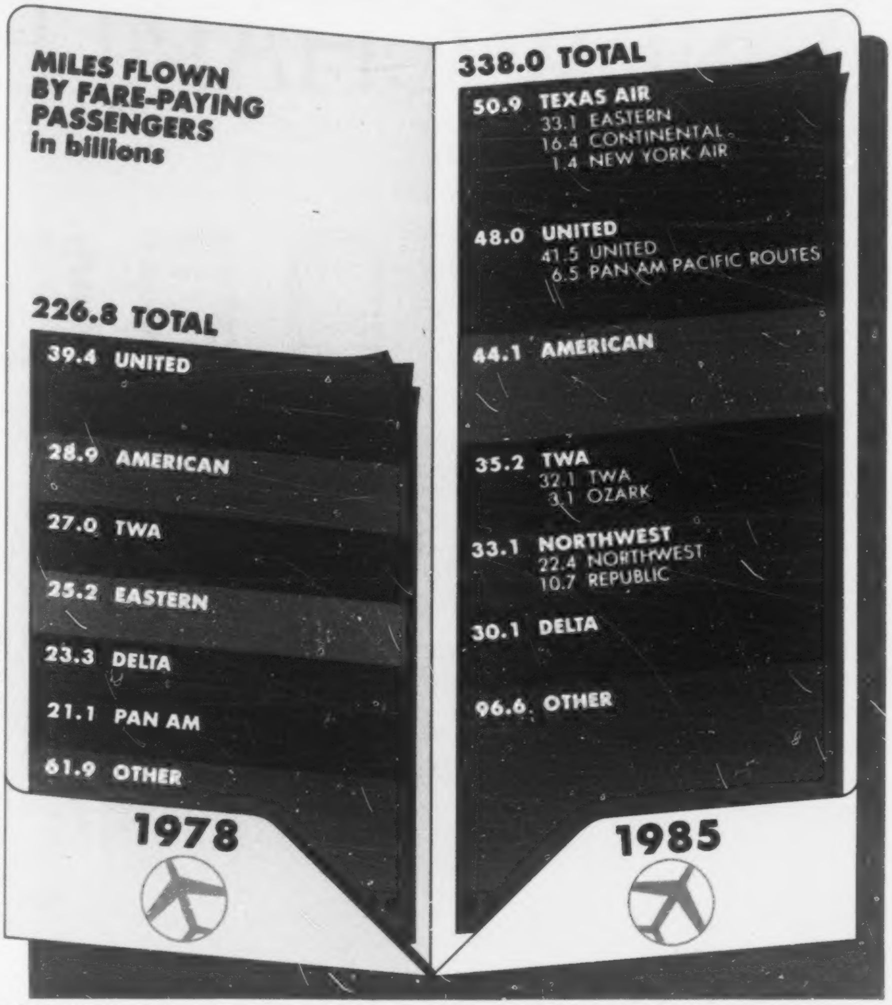
WHEN A CARRIER controls a large share of the traffic at a busy airport, the system is virtually foolproof. Elizabeth Bailey, former vice chairman of the Civil Aeronautics Board and now dean of the Carnegie-Mellon University Business School, recently completed a study demonstrating that a carrier controlling 70% to 80% of the volume at an airport will almost certainly be profitable.

Most of the recent deals have been made by carriers seeking to strengthen a hub or snatch a new one. By buying Republic, Northwest took control of the Minneapolis hub, which it had been sharing with Republic. It also acquired Republic's strong hubs in Memphis and Detroit. TWA, which had been sharing the St. Louis hub with Ozark, struck first before another carrier could come in and splinter the business further. People Express, which operates out of Newark, got a foothold for the long run in the West when it acquired Frontier, based in Denver. One of the chief reasons Texas Air wanted Eastern was to plunge into the Southeast by using Eastern's strong hubs in Miami and Atlanta.

United's move into the Pacific made strategic sense because its three major hubs are located in Chicago, Denver, and San Francisco, all ideally located to handle traffic flowing to the West Coast and the Orient. While the Asian business itself is a rich plum, the airline is sure its domestic business will pick up as well because Asia-bound passengers will book the same airline for feeder flights to their international points of departure.

Though United has been flying its new routes to Asia only since early February, Donald C. Moonjian, the airline's senior vice president and general manager for the Pacific division, says that advance reservation figures already show an uptick in domestic business traceable to the new Asian flights. Northwest, United's chief U.S. competitor for Asian business, acquired Republic in large part to gain muscle for the upcoming struggle over the Pacific.

Practically as important as a good hub is a formidable automated reservations system, something Texas is acquiring with Eastern. Such systems, which are developed and marketed by the airlines, have become almost indispensable for the 27,000 or so travel agencies in the U.S. American and United dominate the field; their systems account for about 70% of the total number of computer terminals in use. But Eastern's System One



SOURCE: AIRLINE ECONOMICS INC. ILLUSTRATION: NINO TELAK

Shifting Shares in a Deregulated Market

Based on what their traffic would have been if they had merged last year, the top six U.S. airlines today control a slightly smaller proportion of a much larger market than the top six did before deregulation. New carriers have proliferated, spreading the business more widely. In the years to come, though, the big airlines are likely to dominate the market.

is the third largest and gives Texas Air a healthy push into the market. Travel agents frequently book their clients on the airline that supplies their reservations systems.

IN SOME CASES, the acquiring airline has also gained a hidden strategic asset: slots—the takeoff and landing rights—at crowded airports. Until recently, these slots were rigidly allocated by an industry committee to airlines at Chicago's O'Hare, Washington's National, and New York's La Guardia and Kennedy airports. Carriers that wanted to start flying into these cities were simply out of luck. Starting in April, however, airlines will be able to buy and sell slots. As a result, slots owned by carriers like Eastern, with its 164 at La Guardia, suddenly have cash value as well. While no one yet knows what slots at O'Hare or La Guardia will sell for, Eastern's 107 slots at National are estimated to be worth at least $20 million.

Supercarrier status, with its attendant control over schedules, traffic patterns, and ticketing, will become increasingly important as airlines play out the remaining moves in the drama of deregulation. So far, the game has been going to the frugal: the carriers who have been able to slash their operating costs, especially labor, and win customers with cheap seats. The low-cost carriers are typically the newer ones like People Express or older ones that have won stiff wage cuts or two-tier pay scales. Work-rule changes can also generate important savings. Delta pays some of the highest wages in the industry, but so far has competed successfully because its nonunion employees work longer hours or take on several disparate tasks.

But big airlines are unlikely to operate with vastly different labor costs over the long run, since workers these days can see as clearly as managers that carriers whose costs are out of line will not stay in business long. For the most part, workers have gone along with the takeovers, often gaining equity in their companies in exchange for wage cuts and work-rule changes.

Ironically, the unions have gained new powers even as they have been forced to the wall. By threatening a strike or refusing to make concessions, a union can make or break a deal with a suitor. TWA's unions swung their company's board toward Carl Icahn because of their animosity toward rival bidder Frank Lorenzo. For similar reasons, Lorenzo also lost out to Burr when Frontier was in play. It was a measure of just how badly Borman's labor relations had deteriorated that one of his unions, the International Association of Machinists, apparently preferred a takeover by archenemy Lorenzo to continuing the status quo.

To date, passengers have been the main beneficiaries of deregulation's upheavals. That should remain the case for the near term, at least. Competition will keep fares low as established players and newcomers, free to enter most markets at will, jockey for position. Says Elizabeth Bailey, with only a touch of hyperbole: "As long as passengers filling empty seats pay more than the meal costs it is worthwhile to get them on board. So fares will stay competitive."

The longer-run outlook, however, worries some industry watchers. As carriers solidify their grips, new entrants will face huge obstacles. Alfred Kahn, the former chairman of the Civil Aeronautics Board and an ardent champion of deregulation, is talking these days like a man who thinks he may have helped create Frankenstein's monster. "The number of carriers in a market is the main factor in keeping prices down," he says. "If carriers in a city are reduced from two to one, I get worried. The possibility that other carriers might come in is not sufficient protection for consumers." If supercarriers do turn their territories into aerial fortresses, even big and powerful competitors may think twice before trying to storm the gates.

APRIL 28, 1986

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THE FORTUNE 500

THE LARGEST U.S. INDUSTRIAL CORPORATIONS

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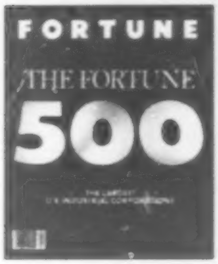
FORTUNE
Corporate Performance



For the cover, Roberto Brosan photographed gleaming stainless steel numerals created by Nicholas Fasciano. The Fortune *500's profits were less lustrous. See special report, page 174.*

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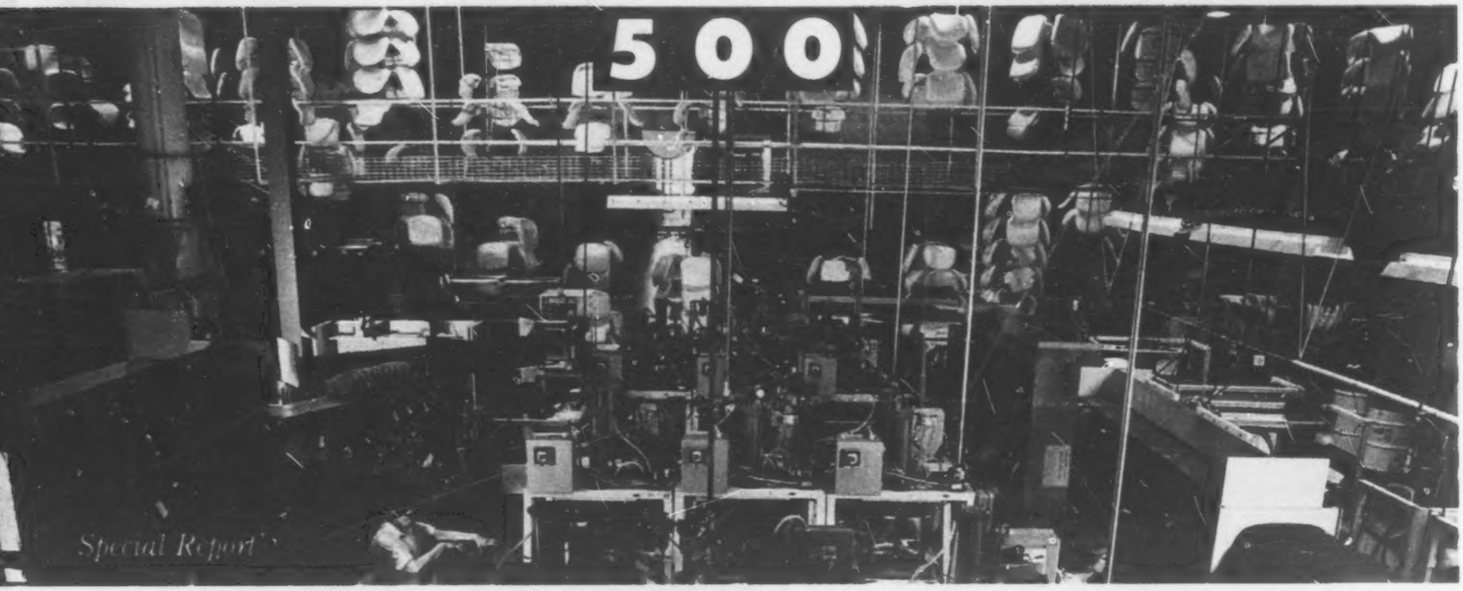

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ATOP THE FORTUNE 500: A SURVEY OF THE C.E.O.s

The bosses of the FORTUNE 500 and Service 500 are older than their predecessors, work longer hours, and own a surprising amount of stock in their companies. ■ *by Maggie McComas*

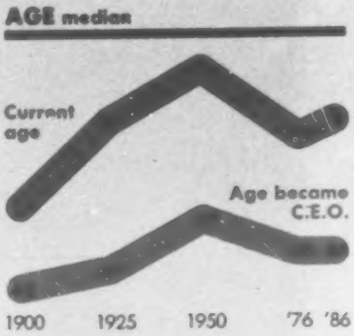
THE JOB of the chief executive officer at a FORTUNE 500 or Service 500 company seems to be getting tougher. A FORTUNE survey of this elite population, the first in ten years, finds that corporate bosses typically work longer hours than their counterparts did a decade ago, perhaps in part because many more of them are new to the companies they head. They worry most not about lofty issues of policy or strategy, but about the nitty-gritty of competitiveness—cost containment, productivity. To a degree not fully appreciated until now, their personal wealth depends on how well their companies fare in the stock market. Contrary to what the Boone Pickens types have been saying about honchos with no stake in the outfits they run, these C.E.O.s own a *lot* of stock in their companies.

FORTUNE's survey of the chief executives of the largest U.S. corporations, as represented on the 1985 lists of the 500 largest industrial and 500 largest service companies, drew 512 anonymous responses. We compared the information gleaned with the findings of earlier studies. Data on C.E.O.s at three earlier points—1900, 1925, and 1950—were taken from a landmark 1955 study, *The Big Business Executive*, by Mabel Newcomer, then chairman of the department of economics, sociology, and anthropology at Vassar College. Her findings served as the model for a FORTUNE poll in 1976. This year our survey was even more extensive, querying executives on their corporate objectives, how they spend their time trying to reach them, and what obstacles they see lying in the way.

Chief executives aren't getting any younger, notwithstanding conspicuous exceptions such as John F. Welch Jr., who became C.E.O. of General Electric in 1981, when he was 45, or John S. Reed, who won the top job at Citicorp in 1984, when he was 45. Not only has the median age of the entire C.E.O. population risen by one year since 1976, to 58, but the age at which the incumbents typically embarked on the job, 50, remained the same as in 1976. This may be partly because fewer companies large enough to make the 500 lists are still headed by their founders. Where younger companies are found—mainly in the quintile of industrials ranked 401 to 500—so are younger appointees. One in five of the C.E.O.s in this group got the job before turning 40, compared with one in ten for all companies.

The average number of years the chief executive has spent in his current position has increased a bit, up from just over seven years in 1976 to nearly eight years. While this belies talk about declining job security at the top, patiently climbing the corporate ladder to get there may be riskier: boards are more willing to bring in an outsider to head

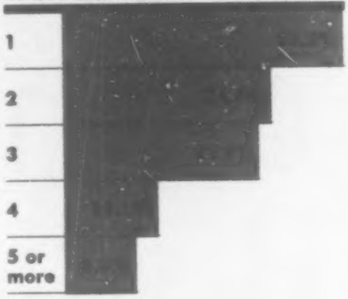
RESEARCH ASSOCIATES *Philip Mattera and Brett Duval Fromson*



YEARS WITH COMPANY BEFORE BECOMING C.E.O.

NUMBER OF YEARS	% OF C.E.O.s 1976	% OF C.E.O.s 1986
Less than 1	9.5%	17.0%
1-2	5.5%	6.2%
3-5	6.5%	7.2%
6-9	7.4%	7.9%
10-14	12.9%	13.3%
15 or more	57.7%	48.2%

NUMBER OF COMPANIES WORKED FOR % OF C.E.O.s



Up From the Ranks

Executives may be mobile these days, but few C.E.O.s have worked for more than four companies. Bankers are the most loyal; 43% in the survey of the chief executives of the FORTUNE 500 *and Service 500 have worked for only one bank. The corporate chiefs who have held the job longest are found in the industrial companies ranked 401 to 500; six respondents in this group are 70 or older.*

ILLUSTRATIONS BY JOHN PIRMAN

The Route to the Top

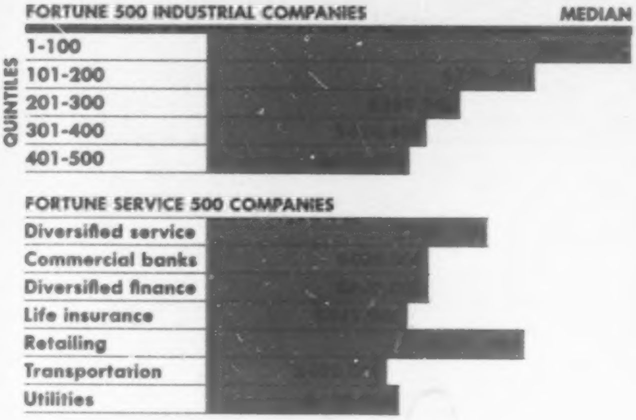
Marketing was the predominant career path. Finance rates second, mainly because of the number of financial companies on the Service 500. About 40% of the C.E.O.s of industrials came up through engineering or production. Most C.E.O.s say experience within the company was the key to their rise, but fewer say so than in 1976.

MAIN CAREER EMPHASIS	% OF C.E.O.s
Sales, marketing, distribution	31.6%
Financial	27.0%
Production, operations	19.5%
Legal	9.2%
Engineering, design, R&D	9.0%
General management	3.5%
Personnel	0.2%

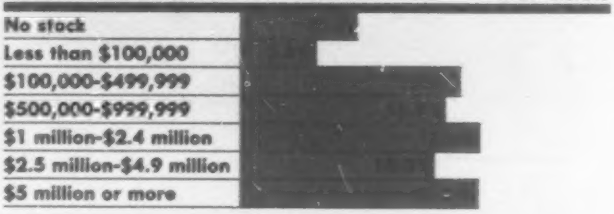
FACTORS IN BECOMING C.E.O.	% OF C.E.O.s
Experience in current company	72.5%
Experience in another company	38.3%
Initiative in organizing company	20.3%
Inheritance or family influence	10.2%
Investment in company	6.6%
Executive recruitment firm	6.6%
Result of takeover	2.5%

COMPENSATION

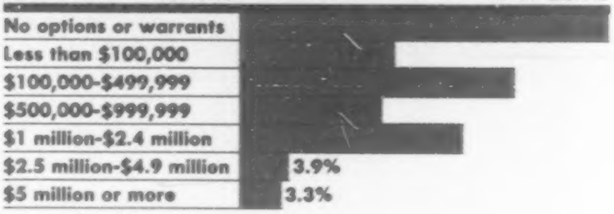
C.E.O.'s salary, bonus, and profit sharing



HOLDINGS OF COMPANY'S STOCK



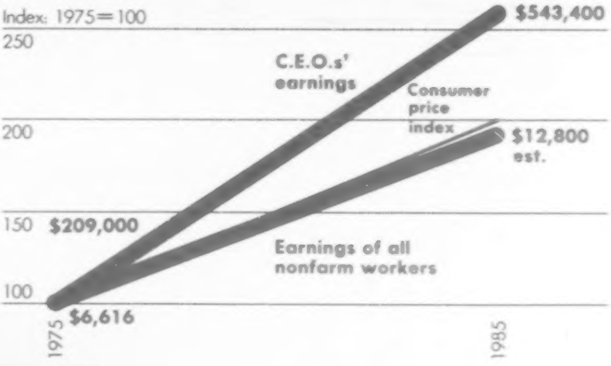
OPTIONS OR WARRANTS ON COMPANY'S STOCK

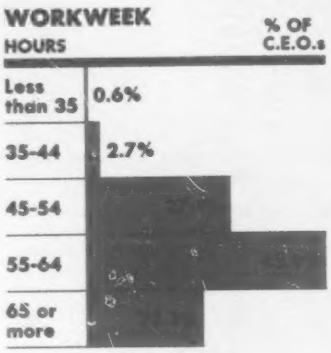


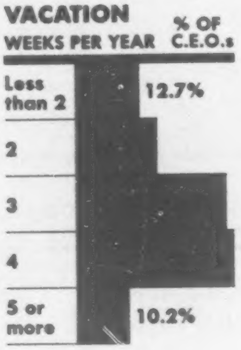
Rewards of Being There

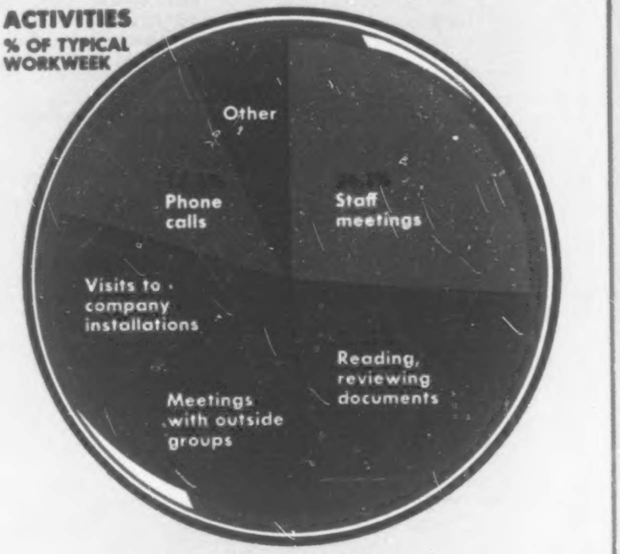
Executives in retailing and diversified financial services have made the biggest pay gains since 1976, tripling their compensation before adjustment for inflation. Chief executives as a group did much better than the average wage earner in the race against inflation over the past ten years. Chiefs of the largest 100 industrial corporations get the fattest bonuses, a median $325,000. But retailers are the richest in their companies' stock; one-third of the retailing company heads surveyed have holdings of $5 million or more.

C.E.O.s' EARNINGS VS. OTHER WORKERS' median







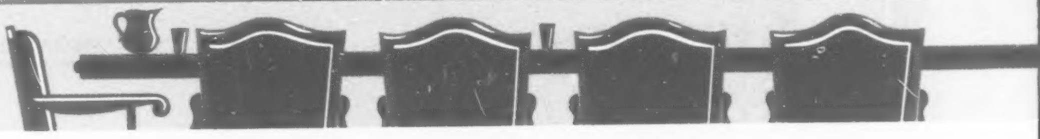


How They Spend Their Time

"Bankers' hours" has taken on new meaning: 71% of bank C.E.O.s say they put in 55 or more hours a week. Almost 11% of all chief executives slog away for more than 55 hours a week and take less than two weeks annual vacation. Much of the long workweek is apparently spent in the office. Retailers spend the most time touring operations, 19% vs. 14% for all chief executives.

GROUPS TAKING UP C.E.O.s' TIME	% OF C.E.O.s CITING[1]
Board, other top management	90.0%
Other managers	79.3%
Shareholders, analysts	55.7%
Other employees	35.5%
Government	32.6%
Top executives of other companies	25.2%
Public, press	28.5%
Other	3.3%

[1] Totals more than 100% because of multiple citations.



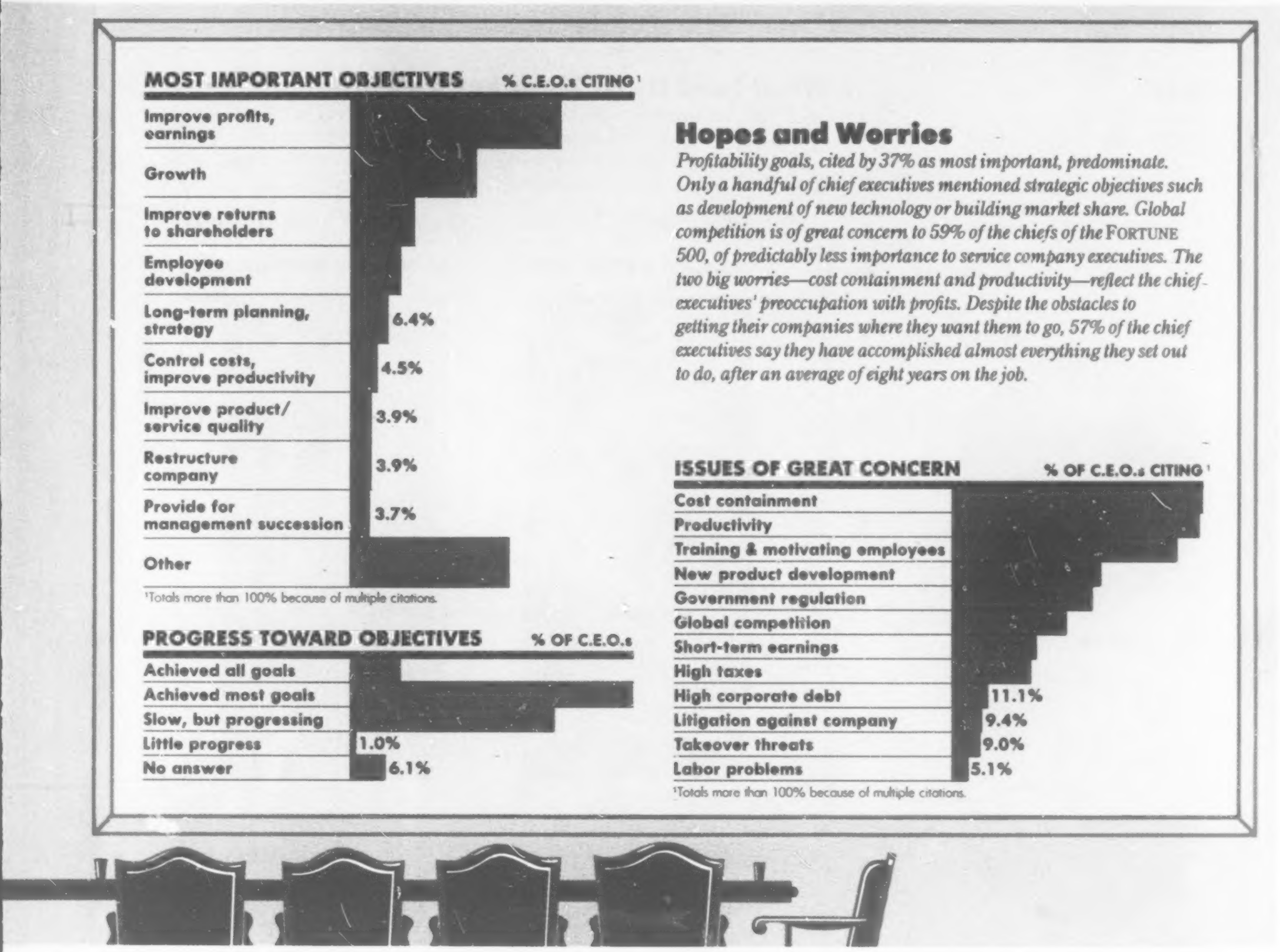
the corporation. The number of C.E.O.s who were with their companies for less than a year when they got the top job has almost doubled since 1976, from 9.5% to 17%. Moreover, 20.7% of today's C.E.O.s joined their companies at the level of president or chairman, compared with 16% in 1976.

TAKEOVERS and mergers may account for some of this flux, but not all. Says Harvard Business School professor John P. Kotter, "More and more companies are finding that when it comes time to replace the C.E.O., they just don't have the right person within the organization." Nonetheless, sticking with one company is still the most common route to the corner office. A third of the chief executives surveyed have had the same employer all their career, and more than half have worked for no more than two companies.

Today's C.E.O. is better educated than his predecessors, at least if academic degrees measure education. Nearly 31% of this select population have master's degrees and almost 12% have doctorates. Among the rest, while 26% stopped with a bachelor's degree, another 20.3% spent some time at graduate studies. Over 40% said they wished they had had more academic training, and for all the bad press that MBAs have been getting, 12.7% of the C.E.O.s said they wished they had picked up that degree.

The royal road to the top seems to be through marketing or sales jobs. In the current crop of C.E.O.s, 31.6% gained most of their experience in those disciplines, compared with 27.9% in 1976. The next most popular specialty, finance, was the career path of choice for 27%, up slightly from 25.3% in 1976. Although 24.8% of the chief executives surveyed majored in engineering as undergraduates or graduate students, only 9% went on to spend a significant part of their careers in that line of work.

Once he gets to the top, the C.E.O. doesn't let up. The executives surveyed typically put in 59 hours a week on the job, significantly more than the 55.7 hours reported in 1976. They spend 22.5% of their time alone reading reports or correspondence, 26.1% in meetings with other managers, and 13.4% on the phone. Clearly the board of directors and other top managers in the company are first in line for the C.E.O.'s attention; 90% of the chief executives cited these groups as occupying a significant amount of their time. Lower-level



Hopes and Worries

Profitability goals, cited by 37% as most important, predominate. Only a handful of chief executives mentioned strategic objectives such as development of new technology or building market share. Global competition is of great concern to 59% of the chiefs of the FORTUNE *500, of predictably less importance to service company executives. The two big worries—cost containment and productivity—reflect the chief executives' preoccupation with profits. Despite the obstacles to getting their companies where they want them to go, 57% of the chief executives say they have accomplished almost everything they set out to do, after an average of eight years on the job.*

employees? They get a significant measure of the big boss's time from only 35.5% of C.E.O.s, and from a mere 25.6% of those heading the largest 100 industrials. "That's certainly not what you'd call 'management by walking around,' " notes Henry Mintzberg, a professor of management policy at McGill University in Montreal and an authority on how executives use their time. "Chief executives spend a lot of time with people like themselves," he observes.

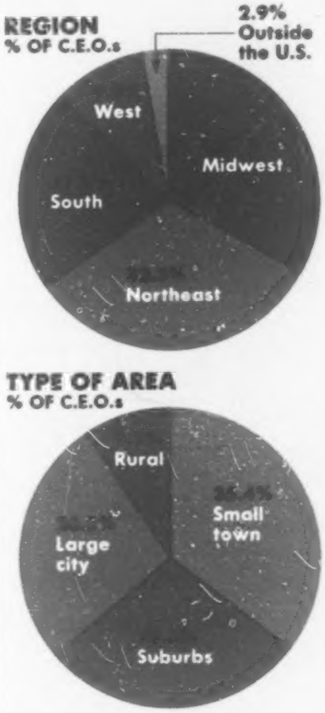
Avidity for financial results shows up in the answers the C.E.O.s volunteered when asked to describe their "most important objective"—the only completely open-ended question in the survey. Maintaining or improving profitability, listed as the primary goal by 36.7%, outranked every other objective. It may be telling that chief executives think first of the bottom line rather than of what it takes to get there: "They seem more concerned with the results of solving problems, but not the problems themselves," says Robert H. Hayes, a Harvard Business School professor who specializes in manufacturing. Only a dozen of the 512 listed customer satisfaction as their primary objective, and only 11 volunteered that their main goal was matching or surpassing the competition in products, service, or technology.

Gone are the days when rapid inflation allowed companies to raise prices almost automatically, thereby covering up a host of problems on the cost side. Asked to rate several issues as of "great," "some," or "little" concern, C.E.O.s overwhelmingly picked cost containment as their principal worry. Productivity came next, then employee motivation. Regulatory constraints were rated less troublesome today than in 1976, when big government was the most frequently cited problem. Yet bureaucratic hamstrings are still of great concern to 43.9% of C.E.O.s. An even greater proportion of executives in industries still subject to varying degrees of regulation worry about bureaucratic meddling: 95.7% of utility company chief executives, 79.3% in life insurance, 73.2% in commercial banking.

More C.E.O.s today are willing to claim allegiance to the two major political parties than in 1976, and they know how to put their money where the policymakers are: 94.1% contributed to a congressional campaign in the past two years, 63.7% through company political action committees. C.E.O.s of utilities, commercial banks, and life insurance

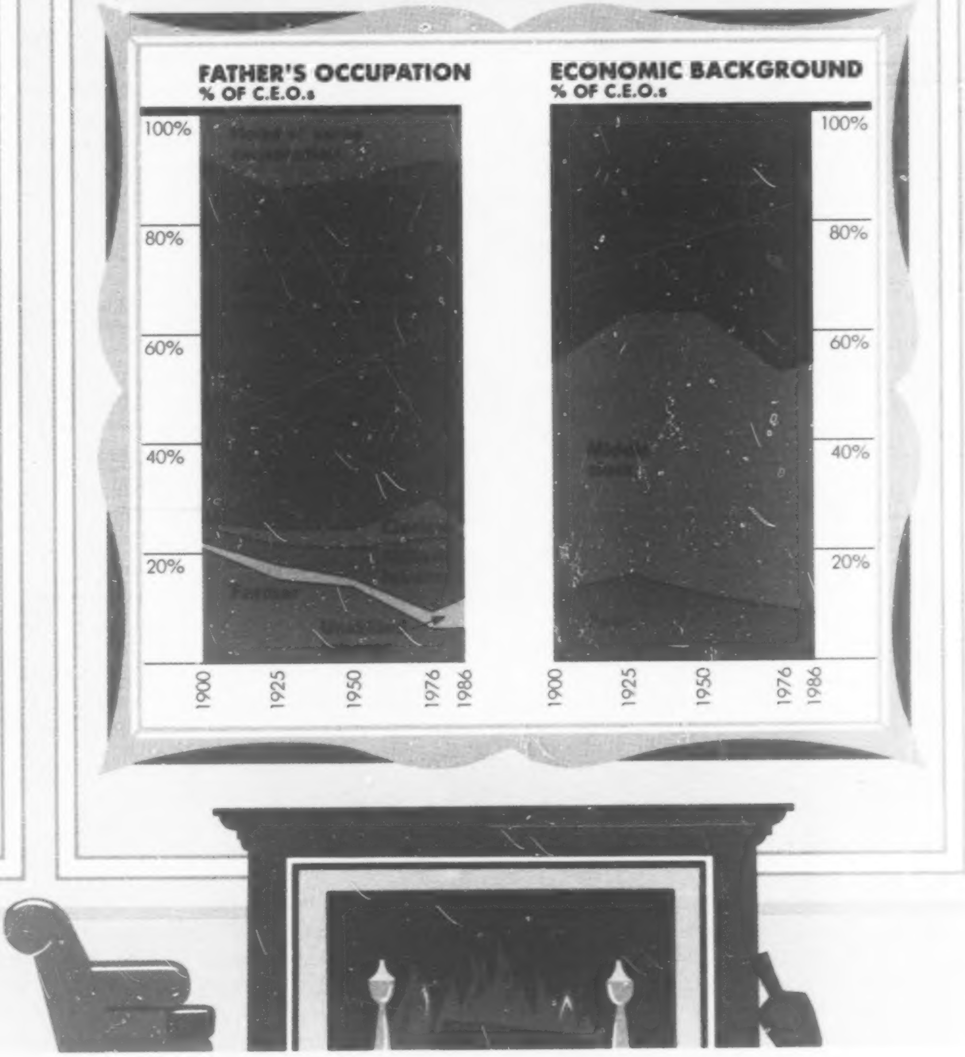
Roots

Only about 30% of the chief executives come from the Sunbelt. Few grew up in rural areas, but those few include 20% of the C.E.O.s of the transportation companies. Among the heads of diversified financial companies, 42% were children of suburbia.



What (and How) Their Fathers Did

An even greater number of C.E.O.s followed in dad's footsteps than in 1976. The fathers of more than half were in business, yet 54% describe their backgrounds as lower middle class or poor. The upper-middle-class category is grouped here with the wealthy, defined in the earlier studies as possessing "some capital" but not necessarily great wealth.



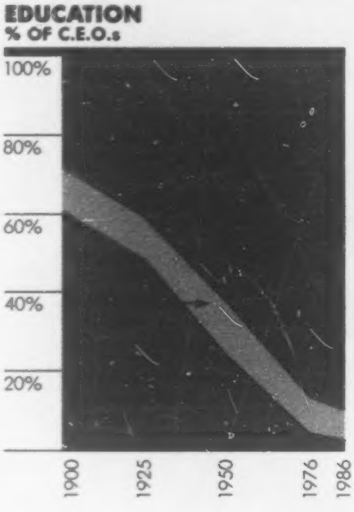
companies are the most prominent PAC men: 100%, 83.9%, and 82.8%, respectively, contributed this way.

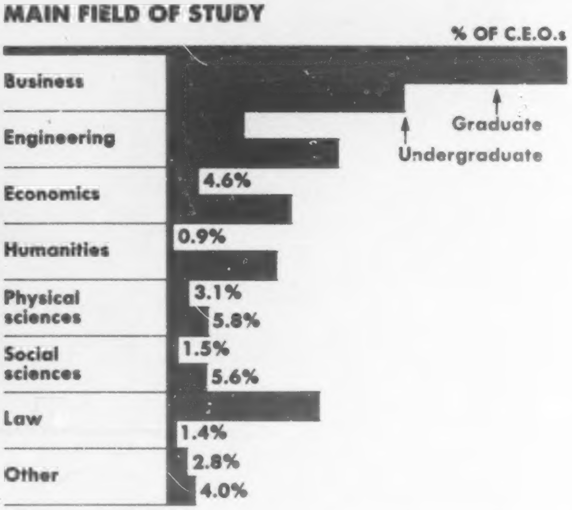
If the C.E.O.'s job has gotten tougher, the financial rewards have accordingly become more handsome. The median total compensation in 1985 for the C.E.O.s surveyed, including bonuses and profit sharing, came to $543,400. That's more than double the 1976 median of $209,000, representing a rate of increase that outstripped the nearly 100% rise in the consumer price index. The relationship of executive pay to corporate performance? For C.E.O.s of the industrial companies, compensation increased by 25.3% over the decade, adjusted for inflation. Return on shareholders' equity, on the other hand, which 42.2% of C.E.O.s rated as the best single measure of corporate performance, declined for the FORTUNE 500 as a group, from 13.3% in 1976 to 11.5% last year. Repeating the pattern of a decade ago, compensation among the industrials closely follows company size, from a median $931,800 for the C.E.O.s of the top 100 to $447,600 for those whose companies ranked 401 to 500. The highest paid in the service sector are the retailers, with a median total C.E.O. compensation of $700,000 last year.

Even brighter in the palette of executive wealth are actual and potential stockholdings. Stock options were reported in terms of the pretax gain on options that could be cashed in soon. The executives typically had options worth $554,000. Options already exercised and outright stock grants have also

How They Prepared

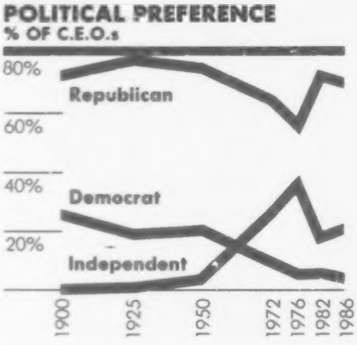
Of today's C.E.O.s, 63% continued their studies after getting a bachelor's degree. More than half of that group concentrated on business, and 22% of all the C.E.O.s surveyed received an MBA or master of science in business. Among the heads of industrial companies, 35% majored in engineering as undergraduates. Only 14 respondents never went beyond high school.

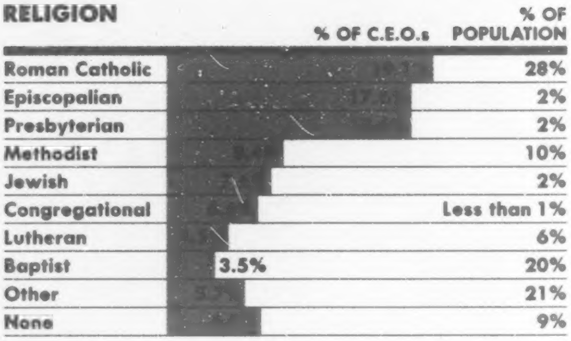


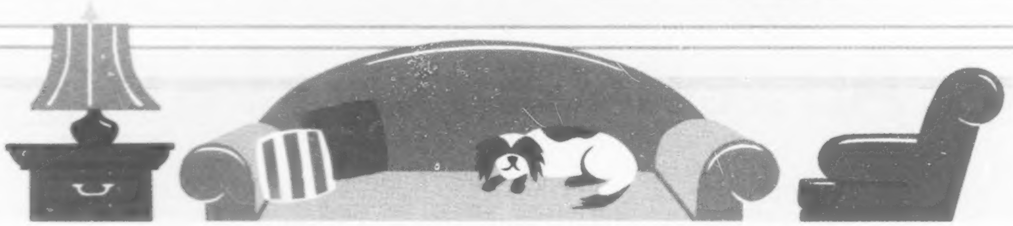


Beliefs

It's getting hard to find a C.E.O. with Democratic leanings. Almost 7% of C.E.O.s say they have no particular religion, a slightly smaller proportion than in the population at large. The percentage of C.E.O.s who are Roman Catholic has increased by a third since 1976.





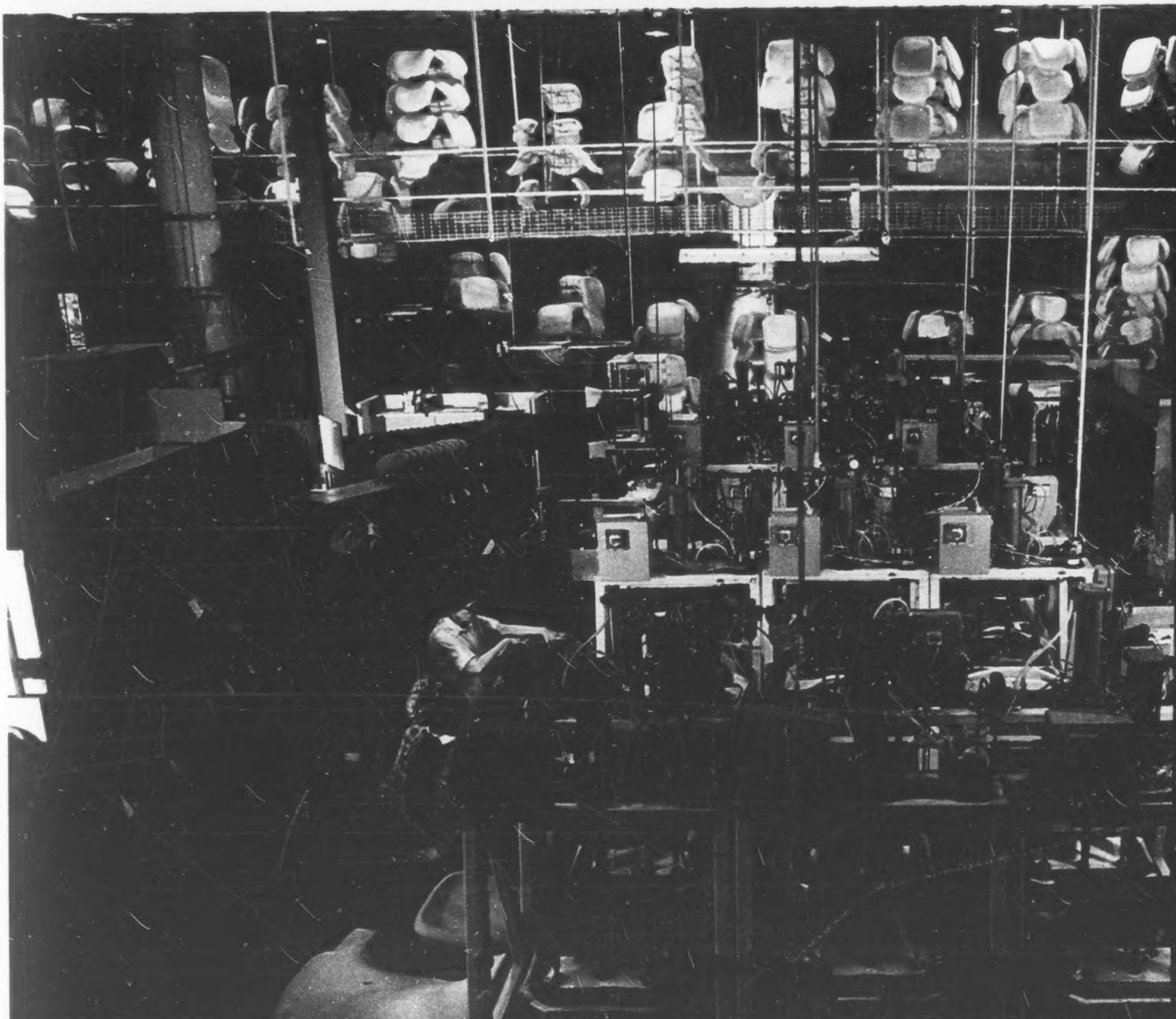


added to the corporate chiefs' holdings of their companies' stock. When FORTUNE surveyed C.E.O.s in 1976, 29.8% reported holdings with a market value of $1 million or more. This time 51.6% have a seven-figure stash, although ten years of inflation makes membership in the millionaires' club worth considerably less today. Eighteen percent of the C.E.O.s reported holdings worth $5 million or more.

Many C.E.O.s can fall back on another financial cushion if trouble should arise. Nearly 36% have employment contracts that provide severance pay for dismissal "without cause" or due to a "change of control." Either provision serves as a golden parachute in the event of a takeover. Threats from raiders are of "great" or "some" concern to 64.5% of C.E.O.s with golden parachutes, but to only 41.2% of executives without employment contracts. Presumably it is executives who feel takeover threats looming who seek financial protection in the first place.

Golden parachutes are relatively new, but then for most companies so is the threat of takeover. There are, however, a few things that haven't changed much about the C.E.O. population. Notable among them, as you can tell from published reports if not from the anonymous responses to the survey, is that over 99% of chief executives are men. The only two exceptions among the FORTUNE 500 and Service 500: Katharine Graham of the Washington Post Co. and Marion O. Sandler, who shares the C.E.O. job at Golden West Financial Corp. with her husband. ■

THIN PROFITS IN A

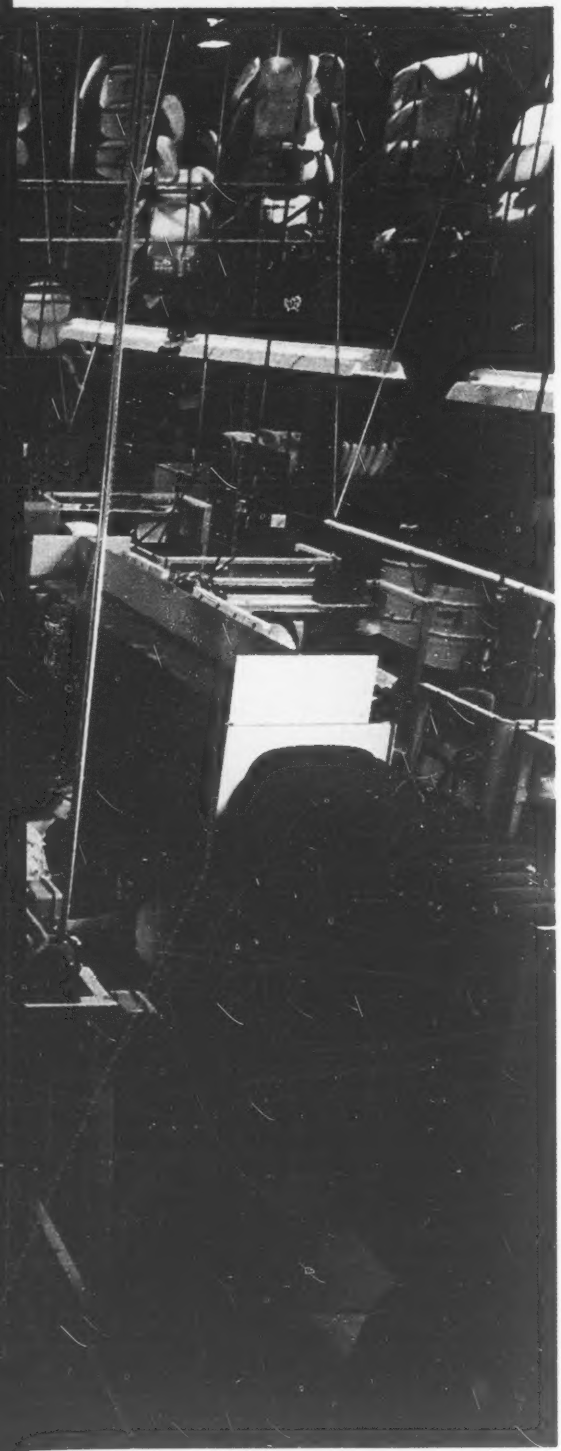


Ergonomic office chairs, *manufactured in Holland, Michigan, helped make Herman Miller Inc. a standout performer. The furniture industry, surprisingly,*

LEAN, MEAN YEAR

Many of the 500 largest U.S. industrial corporations sagged in 1985, and a record number lost money. But some relative unknowns performed splendidly for shareholders. And GM toppled Exxon as king of the hill.

■ *by Alex Taylor III*



produced the best total return to investors.

ONLY TWO COMPANIES have ranked No. 1 on the FORTUNE 500 directory of industrial corporations in the 32 years the list has been compiled. General Motors held the spot from 1954 until it was unseated by Exxon in 1974. GM regained the title in 1977 and then lost it a second time in 1979. This year GM is No. 1 again. The contest was not even close. Running plants full speed, GM boosted sales 14.8% to an all-time high of $96.4 billion, though profits sagged to $4 billion from last year's $4.5 billion. With oil prices falling, Exxon's sales slipped 5% to $86.7 billion, well below 1981's record of $108 billion.

Oil prices and auto sales are like two ends of a seesaw: when one is up, the other is down. Unlikely as it seems right now, Exxon may pass GM again some year. GM has to guard its market share from a reawakened Ford and feisty Chrysler, not to mention the Japanese. Recall that after Exxon passed GM by $12.7 billion in 1979, its No. 1 rank appeared permanent. It could rebound again if, as many observers believe, lagging exploration and increased consumption start to push oil prices higher a year or two from now.

Even apart from the rare shift at the top, 1985 was an eventful, though mostly disappointing, year for the FORTUNE 500. The directory ranking the 500 by sales and many other performance measures begins on page 182. Overall sales moved up only 2.8%, less than the inflation rate. Profits sank 19.1%, the worst performance since the recession year of 1982. Slack demand, a strong dollar, and fierce international competition all hurt. Metals, transportation equipment, textiles, and mining fared poorly. Even computers and office equipment fell 6.2%. Only 242 companies among the 500 showed profit increases, and 70 lost money—a record.

So far the 1980s have been lean years for the 500. Since the prerecession peak in 1981, sales have increased only 2% and profits have slid 17.4%. Total employment of the 500 has declined since 1979 because of mergers, the transfer of production overseas, and cost reductions to cope with foreign competition.

Unable to wring satisfactory returns from their traditional businesses last year, many of the 500 companies put efforts into rearranging their existing resources and buying new ones. They restructured through mergers and acquisitions, stock repurchases, and leveraged buyouts. At least 173 companies repurchased significant amounts of their own stock. Fourteen, including Allied, R.J. Reynolds Industries, and Philip Morris, bought other 500 companies. Among the acquired: Cluett Peabody, General Foods, Nabisco, G.D. Searle, and Signal. Leveraged buyouts, either announced or completed, transformed 11 other 500 companies including Beatrice, Kaiser Aluminum, Levi Strauss, Revlon, and Uniroyal. According to the Salomon Brothers investment firm, 498 restructuring deals of one kind or another were announced last year, up 169% from 1984. The combined dollar value came to $191.4 billion. That's 54% more than in 1984 and equivalent to the combined assets of GM, Exxon, Mobil, and ITT.

Restructuring is popular because many companies see few incentives to invest in plant and equipment. As Edward Yardeni, chief economist at the Prudential-Bache brokerage firm, points out, factories are underused, world markets are glutted with goods, and customers are sensitive to price increases. He puts restructured companies into three categories. Conservative outfits buy their own stock to push up the price, reduce total dividend payouts, and boost earnings per share. Defense-minded companies protect themselves from takeovers by going private through leveraged buyouts. Aggressive companies try to buy competitors. Says Yardeni: "Major markets in the Middle East and Latin America have shriveled. Restruc-

RESEARCH ASSOCIATES *Barbara Hetzer, Christopher Knowlton, and Barbara C. Loos*

PHOTOGRAPH BY MICHAEL L. ABRAMSON

turing will continue until demand builds and firms decide they can raise prices."

Many companies load up with debt when they restructure. Last year the assets of the 500 increased 7.4% but shareholders' equity only 5%. The new debt generates additional leverage that can boost returns if business expands; companies earn profits on money they borrow as well as on funds accumulated from earnings. But the debt can become burdensome when the economy turns down, as it surely will sooner or later, perhaps as early as 1987. Observes Steven G. Einhorn, portfolio strategist at the Goldman Sachs investment firm: "In the last two years we have seen the positive effects of restructuring. But there is a negative side—the leverage that is added to the economic system. When we go into the next recession this debt could pose a problem."

Despite the generally drab tone of the 500's results for 1985, some companies and industries did splendidly. Among the surprises in this year's figures was the industry winner in total return to investors (stock price appreciation plus dividends). Not computers. Not aerospace. It was the furniture business. Furniture turned in the best performance both last year and over the past decade after finishing in negative numbers in 1984. In 1985, furniture returned 57.1% to investors vs. 24.1% for the 500; over the decade, it returned an average of 28.1% a year compared with 15.3% for all the industrials.

THE INDUSTRY'S STATS got help from two newcomers: Herman Miller (No. 469 in sales), a maker of high-grade office furniture, and Hon Industries (No. 478), which makes moderate-priced styles for open office layouts. With continued growth in the white-collar office work force, both companies are expected to prosper in 1986 too.

THE HIGHEST TOTAL RETURN TO INVESTORS FOR 1985

ALOFT ON WINGS OF JUNK BONDS

A manufacturer of vending machines, jukeboxes, copper wire, and cable might seem an unlikely prospect to lead the FORTUNE 500 in total return to investors (stock price appreciation plus dividends), but it happened last year. Triangle Industries (No. 216 by sales) of New Brunswick, New Jersey, won hands down with a 315% return and boosted its modest sales of $160 million a year tenfold in the process.

Run by Nelson Peltz and Peter May, virtual unknowns with backgrounds in the food distribution business, Triangle spurned the steady-growth method for making the FORTUNE 500. Last April, using lots of nerve and Drexel Burnham Lambert's high-risk, high-yield junk bonds, the entrepreneurial pair paid $421 million for Chicago's National Can (1984 sales rank: 188), the third-largest U.S. canmaker, with 1984 earnings of $43 million on sales of $1.9 billion. National Can, a well-managed company with efficient, thoroughly modernized factories, was in the midst of a good year, thanks to weak steel and aluminum prices and strong soft drink sales. Triangle topped bids by National Can's management and picked up the 38% stake held by financier Victor Posner and his Delaware-based NVF Co.

Propelled by the addition of National Can's earnings, Triangle's net income shot from $3.2 million to $36.8 million, up 1,038%, second-loftiest rise among the 500 (No. 1: Pacific Resources, with a 1,366% increase). Gains from sales of some pre-can assets added lift. Triangle stock, paying dividends of a dime, rose from $16.25 to $38.625 a share, split two for one, and closed the year at $33.50.

Showing restraint rare among raiders, Peltz and May left the assets and management ranks of National Can undisturbed, a decision that Carol Constantine, Triangle's vice president for investor relations, calls "one we are proud of." The new owners swiftly reduced debt by floating convertible debentures and issuing redeemable preferred stock. With some of the proceeds they bought back National Can securities and warrants, a move expected to save $13 million in interest costs in 1986. It was this financial footwork as much as the acquisition itself that earned Peltz and May Wall Street's respect. The purse for their efforts? A 38% shared stake in the equity, valued at over $50 million.

– Christopher Knowlton

Another surprise, toys and sporting goods, generated the biggest 1985 increases in sales (45.1%) and profits (60.8%). Much of the sales boost came from Minstar, run by financier Irwin Jacobs. It arrived on the list as No. 267 after acquiring sporting goods maker AMF. Coleco Industries (No. 364) generated the year's best return on shareholders' equity (81%), rebounding from the Adam home computer debacle. But with sales of the famous Cabbage Patch dolls now begining to wilt, Coleco is not expected to match that feat this year. Hasbro (No. 272), which shunned fads like video games in favor of toys with long-run popularity, produced the best total return to investors over the decade, with a yearly average of 58.7%. Hasbro's acquisition of the Milton Bradley game company and Jem, a doll who looks like the lead in a rock video, should help maintain momentum. A dollar invested in Hasbro stock ten years ago is worth $91 now.

The ebbing fortunes of Big Oil wrought the biggest changes in the upper reaches of the 500 list. Mobil managed to stay ahead of Ford thanks to the inclusion of sales from Superior Oil, acquired in 1984, but other oil companies moved down in rank. Texaco slid from fifth to sixth, Amoco from tenth to 11th, and Shell from 13th to 14th. Lower revenues from its Conoco subsidiary pushed Du Pont down from seventh to ninth. Chevron advanced from No. 11 to No. 7, but only by virtue of its 1984 takeover of Gulf. This year will prove even tougher for the major oil companies, industry observers say.

IBM (No. 5) led the 500 in profits again, though its net income declined a bit to $6.6 billion. Most computer makers fared poorly. Control Data (No. 106) wound up as the fifth-biggest money loser, down $567.5 million. A notable trend buster was Digital Equipment, which beat competitors to market with two new VAX computers and moved to No. 55 from No. 65. Wall Street expects 1986 to end up as another disappointing year for the computer industry, which suddenly finds itself ignominiously tied to the capital goods cycle.

The number of 500 money losers nearly doubled in 1985, easily surpassing the old record of 60 set in 1983. The surge of losses can be partly attributed to write-offs for discontinued operations and shrunken assets. Write-offs became fashionable last year. "It used to be that a C.E.O. was laughed at for taking big write-offs," says Robert S. Salomon Jr., a managing director of Salomon Brothers. "Most write-offs are now viewed as constructive. They represent an undoing of failed diversification efforts of years gone by.'' Some observers believe that managers are taking advantage of a forgiving stock market to cover up mistakes.

General Mills (No. 64) wrote off $188.3 million in divesting its clothing and toy divisions. The slimming is expected to free up more than $350 million this year, the amount that went for debt service and improvements in the sold-off divisions. The funds will be used to build up the company's high-return food and restaurant businesses.

Allied Corp. sold half its oil and gas operations, merged with Signal, and then spun off 35 cats and dogs into a new company called Henley Group, whose shares are expected to start trading soon. The changes cost $725 million in write-offs. The new Allied-Signal is smaller (it drops to No. 37 from No. 26) and more concentrated in aerospace and electronics. The company expects sales growth of 20% this year.

On the list of money losers, repeaters include International Harvester (No.104), which has dropped $3.3 billion over the past six years. The company started 1986 shorn of its money-losing agricultural division (a $479-million write-off) and endowed with a new name, Navistar International. Navistar has been making a small profit on its truck line, but price pressures and a projected 10% sales decline will hurt 1986 results. Bethlehem Steel (No. 70) became a four-time loser in 1985 with accumulated deficits of $1.9 billion. So did Amax (No. 183), which has posted four-year losses of $1.7 billion. The list's biggest 1985 loser, also a four-timer, was LTV (see box).

Transportation equipment suffered the

THE BIGGEST MONEY LOSER

CAUGHT IN A STEEL TRAP

One out of seven among the 500 industrial corporations—70 companies in all—lost money in 1985, a record in the 32-year history of the FORTUNE 500. Twelve were repeat offenders. The champion money loser was troubled LTV, the Dallas steel company (No. 43 in sales). Its $723.9-million deficit was nearly double its loss of the year before. LTV has now lost money four years in a row.

A $380-million write-down of an unprofitable steel plant in Aliquippa, Pennsylvania, accounted for a huge chunk of the 1985 loss, but LTV has been suffering along with other steelmakers, such as Wheeling-Pittsburgh (No. 392) and Bethlehem (No. 70). With the industry hurting from foreign competition and weak prices, LTV got enmeshed in debt with its 1984 acquisition of Republic Steel. Although both companies were unprofitable, management thought that merging and then streamlining them would create a profitable combination. LTV, however, anticipated a recovery that never came. Steel prices drifted downward from late 1984 through 1985. Stockholders must sometimes wonder why the former Ling-Temco-Vought, long since divested of its consumer electronics, shipping, meat, and food products businesses, ever went into steel.

LTV's ace remains its aerospace and defense company, which continues to show profits. Growth in the defense industry and a strong base of contracts, including $1-billion-plus deals with Rockwell International and the U.S. Army, have helped triple the subsidiary's sales since 1982, boosting earnings by 263%. A few years ago LTV was looking to acquire Grumman, but it is doubtful whether the company could make such a big-money move now. Losses on steel have pinched its prospects.

Though this year looks better than last for LTV, the company's expectations are far from effervescent. The economy, stimulated by falling oil prices, may use more steel, and the declining dollar should help reduce imported steel's market share, from 25% in 1985 to perhaps 22%. But the industry is still struggling, and for 1986 LTV seems likely to take yet another loss. **—Barbara Hetzer**

THE BIGGEST TURNAROUND

CAT COMES BACK

Tortured by the overvalued dollar, Caterpillar, formerly Caterpillar Tractor (No. 52 in sales), lost nearly $1 billion in three years and surrendered market share to a Japanese upstart with the karate-chop name Komatsu. Now Cat is back. The company's bulldozers and dump trucks still sell for little more than they did in 1982, and sales, $6.8 billion last year, have yet to creep back to 1981's level, but last year Cat earned $198 million.

The leader of the turnaround was Chairman George Schaefer, an ex-accountant known as a keen cost cutter. He closed, consolidated, and automated plants and aggressively shopped abroad for cheap parts. Since 1981 the company has slashed employment 38%. Management says cost cutting will continue at a rate of 5% a year. Treasurer Len Kuchan describes it as "squeezing the bottle a little harder."

Caterpillar may never again find the abundance of huge construction projects that carried it through its banner years. Developing countries can ill afford them, and the trend is toward smaller projects and infrastructure fix-ups. The company has expanded its product lines in an effort to capture new markets. An international outfit that derives 44% of sales from overseas, Cat will benefit from Western Europe's improving economy. Security analysts project 1986 earnings of $5 a share, up from $2 last year.

As for Komatsu, the currency shoe is now on the other foot. With the yen up 30% against the dollar from a year ago, the Japanese company and its American subsidiary are finding it tough to compete with today's trimmer Cat. Komatsu America has been forced to raise list prices 18%. Competition will undoubtedly be fierce in the back-alley brawl for market share, but this year at least, the round is sure to go to Caterpillar.

What sets Cat apart is its reputation for repairing and servicing what it sells. Customers in construction value service so highly that they will pay a premium for Caterpillar's products. Service, says James McCann, a vice president for research at the Drexel Burnham Lambert investment firm, is the "lifeblood of the business." **—Christopher Knowlton** worst industry reversal, measured by sales. After turning in a 29.4% sales gain in 1984, it tumbled to an 11% decrease last year. Metals also underwent a drastic reversal. A 73.1% profit increase in 1984 was followed by a 26.7% decrease in 1985. Security analysts do not expect either industry to improve more than marginally this year.

The performance of the 500 from an investor viewpoint was subpar last year, as might be expected from the poor showing in profits. The median return from price appreciation and dividends was 24.1%, well below last year's return of 33.6% from the 30 stocks in the Dow Jones industrial average and 31.6% for the broader S&P 500-stock average. Individual leaders were a disparate group. After Triangle Industries (see box), the company with the second-best return was Tosco (No. 234), an independent oil refiner that rebounded from a $211-million loss to finish narrowly in the black. Smithfield Foods (No. 398), an aggressively managed pork processor, bought 25% of its outstanding stock. Chemical maker GAF (No. 374) won by losing: it netted $180 million in its failed takeover bid for Union Carbide. And United Brands (124), a banana importer and meatpacker, profited from speculation that chairman and major shareholder Carl Lindner will take it private. The two worst performers: Datapoint (No. 458), an early local-area-network company that could not keep up, and Computervision (No. 494), a maker of computerized engineering tools whose sales were battered by nimbler rivals.

New arrivals to the 500 this year total 26. Three are agricultural co-ops: Ag Processing (No. 402), California & Hawaiian Sugar (No. 448), and Riceland Foods (No. 442). Six companies return to the list after absences of up to four years.

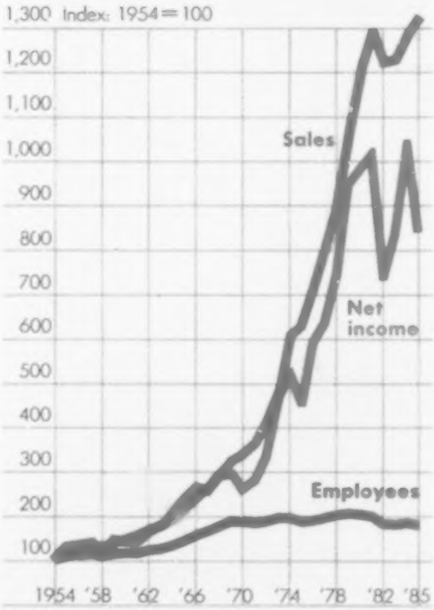
Compaq Computer appears as No. 463 only four years after its incorporation, thus becoming the youngest start-up company ever to make the list. It continues to prosper in the face of troubles in the personal computer industry. The second-youngest start-up operation, five-year-old apparel marketer Liz Claiborne (No. 437), also makes its maiden appearance this year. Claiborne only narrowly qualifies as an industrial company, defined as a corporation that derives more than half its sales from manufacturing or mining. Though it does not own any factories, Claiborne performs some functions of a manufacturer: buying raw materials, designing samples, and supervising production.

Departures from the 500 number 32. Seventeen companies were acquired, two no longer report results, and one, Management Assistance, a maker of small business computers, was liquidated. Gulf & Western and National Intergroup now get less than half their revenues from manufacturing and therefore move to the Service 500. Ten companies fell off the list because they failed to achieve the sales cutoff of $424 million.

Expect to see more restructuring in 1986 as profits in competitive industries continue to lag. The pace should slacken, however. The ripe acquisition opportunities have been exploited, and stocks, having risen 40% in six months, no longer look cheap. New federal regulations are curbing leveraged buyouts by restricting the junk bond deals used to finance them.

Wall Street does not expect a big rebound in FORTUNE 500 profits this year. Among the prominent laggards will be oil, steel, mining, and producers of farm, industrial, oil, and office equipment. But the outlook is much brighter for companies that can benefit from some combination of cheap oil, declining interest rates, subdued inflation, and a weak dollar. They could attain substantially stronger profits. From their vantage point, 1986 will look less like the fourth year of an aging economic recovery than the first year of a new expansion cycle. ■

THE 500 THROUGH THE YEARS



Running *to stay in place, the* FORTUNE *500 scored only a meager overall sales gain in 1985, and profits dropped from the previous year.*

. . . AND RECENT PERFORMANCE

	1985	1984
Sales (billions)	**$1,807.1**	**$1,758.7**
Change in sales	**2.75%**	**4.27%**
Profits (billions)	**$69.6**	**$85.9**
Change in profits	**−19.1%**	**24.9%**
Assets (billions)	**$1,519.5**	**$1,414.3**
Number of sales increases	**332**	**429**
Number of profit increases	**242**	**367**
Number of money losers	**70**	**37**
Median return on sales	**3.9%**	**4.4%**
Median return on equity	**11.5%**	**13.5%**
Median total return to investors	**24.13%**	**−0.75%**
Number of employees (millions)	**14**	**14.2**

Losing steam *in the fourth year of the recovery, the 500 underperformed in nearly all important categories. But thanks to 1985's helpful stock market, the median total return to investors (stock price appreciation plus dividends) showed a comforting improvement over 1984.*

RANK 1985	RANK 1984	COMPANY	SALES $ THOUSANDS	ASSETS $ THOUSANDS	ASSETS RANK	NET INCOME $ THOUSANDS	NET INCOME RANK	STOCKHOLDERS' EQUITY $ THOUSANDS	STOCKHOLDERS' EQUITY RANK
1	2	**General Motors** (Detroit)	96,371,700	63,832,800	2	3,999,000	3	29,524,700	2
2	1	**Exxon** (New York)	86,673,000*	69,160,000	1	4,870,000	2	29,096,000	3
3	3	**Mobil** (New York)	55,960,000*	41,752,000	4	1,040,000	14	14,089,000	8
4	4	**Ford Motor** (Dearborn, Mich.)	52,774,400	31,603,600	8	2,515,400	4	12,268,600	12
5	6	**International Business Machines** (Armonk, N.Y.)[1]	50,056,000	52,634,000	3	6,555,000	1	31,990,000	1
6	5	**Texaco** (White Plains, N.Y.)	46,297,000	37,703,000	7	1,233,000	12	13,628,000	10
7	11	**Chevron** (San Francisco)	41,741,905*	38,899,492	6	1,547,360	10	15,554,525	5
8	8	**American Tel. & Tel.** (New York)	34,909,500	40,462,500	5	1,556,800	9	14,633,300	6
9	7	**E.I. du Pont de Nemours** (Wilmington, Del.)	29,483,000	25,140,000	12	1,118,000	13	12,659,000	11
10	9	**General Electric** (Fairfield, Conn.)	28,285,000	26,432,000	10	2,336,000	5	13,904,000	9
11	10	**Amoco** (Chicago)[2]	27,215,000*	25,198,000	11	1,953,000	6	11,588,000	13
12	12	**Atlantic Richfield** (Los Angeles)	22,357,000	20,279,000	14	(202,000)	464	5,506,000	20
13	14	**Chrysler** (Highland Park, Mich.)[3]	21,255,500	12,605,300	23	1,635,200	8	4,215,300	30
14	13	**Shell Oil** (Houston)[4]	20,309,000*	26,528,000	9	1,650,000	7	14,129,000	7
15	15	**U.S. Steel** (Pittsburgh)	18,429,000	18,446,000	15	409,000**	43	6,305,000	17
16	16	**United Technologies** (Hartford)	15,748,674	10,528,105	29	312,724	54	4,373,344	28
17	17	**Phillips Petroleum** (Bartlesville, Okla.)	15,676,000	14,045,000	20	418,000	41	1,644,000	82
18	19	**Tenneco** (Houston)	15,400,000	20,437,000	13	172,000	91	5,903,000	19
19	18	**Occidental Petroleum** (Los Angeles)	14,534,400	11,585,900	26	696,000**	18	3,281,000	39
20	20	**Sun** (Radnor, Pa.)	13,769,000	12,923,000	22	527,000	30	5,289,000	21
21	29	**Boeing** (Seattle)	13,636,000	9,246,000	34	566,000	25	4,364,000	29
22	22	**Procter & Gamble** (Cincinnati)[5]	13,552,000	9,683,000	32	635,000	20	5,272,000	22
23	23	**R.J. Reynolds Industries** (Winston-Salem, N.C.)[6]	13,533,000*	16,930,000	18	1,001,000	15	4,796,000	23
24	24	**Standard Oil** (Cleveland)	13,002,000*	18,330,000	16	308,000	55	8,018,000	14
25	21	**ITT** (New York)[7]	12,714,276	14,272,499	19	293,501	58	6,469,792	16
26	36	**Beatrice** (Chicago)[8,9]	12,595,000	10,379,000	30	479,000	34	2,357,000	58
27	32	**Philip Morris** (New York)	12,149,000*	17,429,000	17	1,255,000	11	4,737,000	25
28	25	**Dow Chemical** (Midland, Mich.)	11,537,000	11,830,000	25	58,000	214	4,792,000	24
29	34	**McDonnell Douglas** (St. Louis)	11,477,700	7,268,400	38	345,700	48	26,334,600	4
30	37	**Rockwell International** (Pittsburgh)[10]	11,337,600	7,332,800	37	595,300	23	2,948,300	47
31	27	**Unocal** (Los Angeles)	10,738,000*	10,797,000	27	325,000	50	1,630,000	85
32	30	**Westinghouse Electric** (Pittsburgh)	10,700,200	9,681,600	33	605,300	22	3,234,700	40
33	28	**Eastman Kodak** (Rochester, N.Y.)	10,631,000	12,142,000	24	332,000	49	6,562,000	15
34	33	**Dart & Kraft** (Northbrook, Ill.)	9,942,300	5,501,800	54	466,100	36	2,880,200	49
35	31	**Goodyear Tire & Rubber** (Akron, Ohio)	9,896,700	6,952,500	39	412,400	42	3,507,400	34
36	43	**Lockheed** (Burbank, Calif.)	9,535,000	4,184,000	74	401,000	45	1,511,000	88
37	26	**Allied-Signal** (Morris Township, N.J.)[12,13]	9,115,000	13,271,000	21	(279,000)	467	6,130,000	18
38	39	**General Foods** (Rye Brook, N.Y.)[14]	9,022,418	4,553,725	69	324,907	51	1,940,244	68
39	35	**Union Carbide** (Danbury, Conn.)	9,003,000	10,581,000	28	(581,000)	475	4,019,000	31
40	38	**Xerox** (Stamford, Conn.)	8,947,600	9,816,700	31	475,300	35	4,386,200	27
41	40	**PepsiCo** (Purchase, N.Y.)	8,478,902	5,861,160	51	543,690	27	1,837,682	71
42	44	**General Dynamics** (St. Louis)[15]	8,410,600	4,448,100	71	383,300	46	1,335,800	100
43	48	**LTV** (Dallas)	8,198,800	6,306,700	45	(723,900)	478	652,200	205
44	46	**Coca-Cola** (Atlanta)	8,138,904	6,897,706	40	722,299	16	2,979,057	45
45	49	**Sara Lee** (Chicago)[1,16]	8,117,206	3,215,794	100	206,312	75	1,066,045	125
46	42	**Ashland Oil** (Russell, Ky.)[10]	7,891,223	3,927,633	78	146,722	106	929,411	151
47	45	**Minnesota Mining & Manufacturing** (St. Paul)	7,846,000	6,593,000	42	664,000	19	4,008,000	32
48	41	**Amerada Hess** (New York)	7,653,439	6,219,453	46	(260,409)	465	2,260,590	63
49	50	**W.R. Grace** (New York)	7,260,100	5,420,900	56	146,900	105	2,404,500	56
50	55	**Coastal** (Houston)	7,254,300	8,294,300	36	142,400	108	772,000	180

THE DEFINITIONS AND CONCEPTS UNDERLYING THE FIGURES IN THIS DIRECTORY ARE EXPLAINED ON PAGE 232.

N.A. Not available.

* Does not include excise taxes; see the explanation of "sales" on page 232.

** Reflects an extraordinary credit of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

† Average for the year; see the reference to "employees" on page 232.

‡ Reflects an extraordinary charge of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[1] Figures include ROLM (1984 rank: 397), acquired November 21, 1984.

[2] Name changed from Standard Oil (Indiana) April 23, 1985.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE		
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK	
811,000†	1	4.2	227	13.5	186	12.28	14.22	4.32	11.01	157	(6.58)	411	7.86	347	40
146,000†	12	5.6	144	16.7	111	6.46	6.77	2.80	8.73	196	24.13	231	12.42	272	29
163,600	8	1.9	346	7.4	321	2.55	3.11	1.99	2.52	267	13.08	321	13.24	254	29
369,300†	3	4.8	187	20.5	56	13.63	15.79	1.85	22.14	30	30.15	193	13.57	246	40
405,535	2	13.1	19	20.5	58	10.67	10.77	3.34	12.32	127	27.15	210	13.14	257	44
54,481	59	2.7	307	9.1	285	5.11	1.03‡	3.06	5.26	236	(7.67)	413	8.74	333	29
60,845	51	3.7	252	10.0	272	4.52	4.48	2.27	7.11	214	24.96	223	14.10	237	29
337,600	4	4.5	201	9.9§	275	1.37	1.25	5.13	(12.37)	334	31.20	188	2.14	404	36
146,017	11	3.8	248	8.8	288	4.61	5.93	1.81	9.80	173	38.99	144	7.72	352	28
304,000†	5	8.3	58	16.8	109	5.13	5.03	1.58	12.46	124	30.15	194	15.93	207	36
49,545	64	7.2	87	16.9	104	7.42	7.70	2.68	10.72	161	20.19	266	14.89	224	29
31,300	118	—		—		(0.97)	2.21	1.54	—		46.52	112	12.72	267	29
107,850†	21	7.7	71	38.8	5	9.38	5.94	(2.16)	—		49.18	102	18.82	159	40
35,167	103	8.1	62	11.7	233	N.A.	5.73	1.90	—		—		—		29
79,649†	38	2.2	329	6.1§	345	2.56**	3.52**	6.87	(9.40)	327	3.92	370	(1.48)	420	29
184,800	7	2.0	337	7.2	325	2.12	4.90	1.94	0.87	280	21.51	255	16.46	199	41
25,300	144	2.7	306	24.7§	32	1.44	1.75	0.75	6.74	222	(13.97)	428	5.76	376	29
111,000	20	1.1	375	2.1§	384	0.75	4.01	4.15	(15.72)	338	9.65	338	9.67	324	29
42,353	79	4.8	185	15.6§	145	4.53**	3.08	2.64	5.55	232	16.20	299	14.66	229	10
37,818	96	3.8	245	10.0	269	4.72	4.67	2.10	8.44	198	14.15	311	18.04	174	29
104,000	22	4.2	226	13.0	200	3.75	5.39	0.53	21.54	33	38.83	145	32.46	32	41
62,200	47	4.7	191	12.0	224	3.80	5.35	2.02	6.50	224	24.46	229	7.76	350	43
147,513	10	7.4	80	19.0§	78	3.60	4.11	1.48	9.31	184	10.18	336	13.69	240	21
42,100	80	2.4	322	3.8	369	1.31	6.14	0.85	4.36	246	20.32	265	12.79	263	10
232,000	6	2.3	325	4.5	362	1.89	2.97	3.20	(5.13)	309	31.75	184	11.08	302	36
100,000	25	3.8	247	20.3	59	5.06	4.23	1.71	11.46	147	70.44	42	11.72	287	20
114,000	19	10.3	33	26.5	26	10.47	7.24	1.81	19.19	50	11.74	329	15.17	220	21
53,200	61	0.5	392	1.2	392	0.31	3.02	3.32	(21.12)	345	52.39	87	1.17	410	28
97,067	26	3.0	287	1.3	390	8.60	8.10	2.27	14.25	101	4.82	364	19.96	140	41
123,266	17	5.3	156	20.2	60	4.00	3.25	0.74	18.38	59	18.32	285	23.74	87	41
20,214	174	3.0	285	19.9	61	2.36	4.03	1.70	3.32	255	(26.62)	447	12.22	279	29
125,571	16	5.7	142	18.7	81	3.52	3.04	0.94	14.05	104	72.12	38	25.75	63	36
128,950	15	3.1	281	5.1	355	1.46	3.81	2.53	(5.36)	312	9.24	342	0.28	416	38
73,318	43	4.7	190	16.2	128	3.22	3.01	1.67[11]	6.79	219	55.99	84	17.01	192	20
134,115†	14	4.2	224	11.8	229	3.84	3.87	2.24	5.54	233	24.46	228	9.10	329	30
87,800	34	4.2	218	26.5	25	6.10	5.28	1.16	18.02	63	12.20	324	34.59	26	41
143,800	13	—		—		(3.28)	5.03	2.78	—		37.55	151	11.98	284	41
56,000	56	3.6	257	16.8	110	6.61	6.10	2.43	10.52	164	—		—		20
91,459	31	—		—		(2.78)	1.53	2.08	—		101.66	10	6.58	363	28
102,396	24	5.3	152	9.7§	279	4.44	2.53	3.07	3.76	252	64.86	60	5.98	373	38
150,000	9	6.4	109	29.6	16	5.83	2.25	1.47	14.77	93	70.80	41	13.60	244	49
103,300	23	4.6	197	28.7	19	9.05	8.08	1.59	19.01	54	(0.82)	391	25.35	67	41
56,800	54	—		—		(8.94)	(5.84)	1.02	—		(31.65)	449	(3.11)	425	33
38,520	92	8.9	49	24.3	24	5.51	4.76	2.00	10.67	162	37.65	150	10.09	314	49
92,800	30	2.5	315	19.4	49	3.61	3.25	0.13	38.90	7	62.18	67	22.32	110	20
32,800	110	1.9	345	12.7§	208	4.12	(7.40)	2.95	3.41	254	59.15	75	15.58	213	29
85,466	36	8.5	54	16.6	113	5.77	6.27	2.29	9.68	176	17.73	292	8.74	336	38
8,290†	322	—		—		(3.08)	2.01	1.51	—		13.49	319	16.07	203	29
116,900	18	2.0	336	6.1	342	2.82	4.02	5.31	(6.13)	315	25.45	221	12.29	276	28
16,237	210	2.0	338	12.6§	209	3.61	3.00	1.73**	7.65	207	109.19	9	28.02	44	29

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[3] Figures include Gulfstream Aerospace (1984 rank: 406), acquired August 16, 1985.

[4] Wholly owned by Royal Dutch/Shell Group (1984 International 500 rank: 1).

[5] Figures are for fiscal year ended June 30, 1985.

[6] Figures include Nabisco Brands (1984 rank: 54), acquired September 10, 1985.

[7] Financial subsidiaries would add 25% or more to sales if consolidated.

[8] Name changed from Beatrice Foods June 5, 1984.

[9] Figures are for fiscal year ended February 28, 1985.

[10] Figures are for fiscal year ended September 30, 1985.

[11] Figure is for Kraftco.

[12] Name changed from Allied September 19, 1985.

[13] Figures include Signal Companies (1984 rank: 61), acquired September 19, 1985.

[14] Figures are for fiscal year ended March 31, 1985.

[15] Figures include Cessna Aircraft (1984 rank: 380), acquired March 3, 1985.

[16] Name changed from Consolidated Foods April 2, 1985.

RANK		COMPANY	SALES	ASSETS		NET INCOME		STOCKHOLDERS' EQUITY	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	$ THOUSANDS	RANK
51	53	**Anheuser-Busch** (St. Louis)	7,000,300*	5,121,400	57	443,700	39	2,173,000	66
52	52	**Caterpillar Tractor** (Peoria, Ill.)	6,769,000	6,016,000	49	198,000	80	3,068,000	42
53	51	**Monsanto** (St. Louis)[17]	6,747,000	8,877,000	35	(98,000)**	448	3,407,000	35
54	47	**Georgia-Pacific** (Atlanta)	6,716,000	4,866,000	63	187,000	87	2,147,000	67
55	65	**Digital Equipment** (Maynard, Mass.)§	6,686,316	6,368,857	43	446,682	38	4,554,599	26
56	56	**Honeywell** (Minneapolis)	6,624,600	5,033,700	60	281,600	60	2,566,900	52
57	59	**TRW** (Cleveland)	6,615,343¶	3,735,418	80	(7,088)	414	1,014,915	132
58	60	**Hewlett-Packard** (Palo Alto, Calif.)[18]	6,505,000	5,680,000	53	489,000	33	3,982,000	33
59	57	**Johnson & Johnson** (New Brunswick, N.J.)	6,421,300	5,095,100	58	613,700	21	3,350,900	36
60	58	**Raytheon** (Lexington, Mass.)	6,408,537	3,441,015	90	375,905	47	1,928,982	69
61	72	**Ralston Purina** (St. Louis)[10]	5,863,900	2,637,300	125	256,400	65	924,500	154
62	70	**Champion International** (Stamford, Conn.)	5,769,759	6,098,129	47	163,139	95	2,599,088	51
63	69	**Sperry** (New York)[14]	5,687,200	5,773,400	52	286,700	59	3,001,100	44
64	64	**General Mills** (Minneapolis)[19]	5,654,100¶	2,662,600	120	(72,900)	443	1,023,300	130
65	121	**ConAgra** (Omaha)[19]	5,498,157	1,547,138	198	91,728	154	458,253	267
66	67	**Motorola** (Schaumburg, Ill.)	5,443,000	4,370,000	72	72,000	192	2,284,000	61
67	90	**IC Industries** (Chicago)	5,292,100¶	4,818,400	64	162,800	96	1,638,600	83
68	66	**Weyerhaeuser** (Tacoma, Wash.)	5,205,579	6,005,279	50	200,116	78	3,324,051	37
69	62	**Aluminum Co. of America** (Pittsburgh)	5,162,700	6,353,600	44	(16,600)	422	3,307,900	38
70	68	**Bethlehem Steel** (Bethlehem, Pa.)	5,117,700	4,742,600	65	(196,000)	462	1,011,300	136
71	106	**Northrop** (Los Angeles)	5,056,600	2,332,700	143	214,400	74	899,000	162
72	76	**Burroughs** (Detroit)	5,037,700	4,556,400	68	248,200	69	2,492,400	53
73	73	**Colgate-Palmolive** (New York)	5,019,698	2,814,005	112	109,442	137	907,048	158
74	122	**Textron** (Providence)	4,990,500¶	4,337,400	73	251,800	67	1,633,300	84
75	63	**Texas Instruments** (Dallas)	4,924,500	3,076,100	102	(118,700)	451	1,427,700	93
76	74	**Archer Daniels Midland** (Decatur, Ill.)§	4,738,767	2,967,117	107	163,908	94	1,803,394	73
77	81	**Borden** (New York)	4,716,172	2,932,246	108	193,804	84	1,407,795	95
78	84	**American Brands** (New York)	4,692,367*	4,926,053	61	420,870	40	2,425,409	55
79	78	**American Home Products** (New York)	4,684,742	3,395,211	92	717,140	17	2,291,758	60
80	94	**Pillsbury** (Minneapolis)[19]	4,670,600	2,778,500	115	191,800	86	1,165,400	114
81	93	**Emerson Electric** (St. Louis)[10]	4,649,200	3,256,800	98	401,100	44	2,222,200	65
82	75	**Litton Industries** (Beverly Hills, Calif.)[20]	4,590,649	4,646,273	66	299,471	57	939,362	146
83	80	**International Paper** (New York)	4,502,000	6,039,000	48	133,000	121	3,195,000	41
84	92	**Bristol-Myers** (New York)	4,444,000	3,721,200	82	531,400	29	2,451,000	54
85	85	**Martin Marietta** (Bethesda, Md.)	4,410,064	2,258,069	149	249,392	68	707,957	192
86	88	**North American Philips** (New York)	4,395,213	2,643,040	124	81,543	169	1,050,600	127
87	•	**Farmland Industries** (Kansas City, Mo.)[22]	4,371,028¶	1,284,177	228	N.A.[21]		462,481	263
88	89	**PPG Industries** (Pittsburgh)	4,345,500	4,083,800	75	302,700	56	1,705,300	78
89	97	**NCR** (Dayton, Ohio)	4,317,166	3,939,840	77	315,216	52	2,318,360	59
90	87	**CPC International** (Englewood Cliffs, N.J.)	4,209,900	3,016,600	105	142,000	110	1,371,900	99
91	104	**Dresser Industries** (Dallas)[18]	4,111,200	3,224,500	99	(196,400)	463	1,646,200	80
92	82	**Armco** (Morristown, N.J.)	4,106,700	3,293,300	95	55,000	221	1,093,500	123
93	83	**Diamond Shamrock** (Dallas)	4,101,800	4,618,000	67	(604,700)	476	1,733,000	76
94	108	**Kimberly-Clark** (Dallas)	4,072,900	3,503,800	88	267,100	63	1,743,900	75
95	96	**Agway** (DeWitt, N.Y.)§	4,067,208	1,359,719	219	N.A.[21]		306,041	320
96	86	**Deere** (Moline, Ill.)[18]	4,060,648	5,462,227	55	30,505	295	2,258,616	64
97	98	**H.J. Heinz** (Pittsburgh)[23]	4,047,945	2,473,774	129	265,978	64	1,230,454	107
98	91	**American Motors** (Southfield, Mich.)	4,039,901	2,000,944	163	(125,263)	453	149,215	427
99	101	**Pfizer** (New York)	4,024,500	4,462,900	70	579,700	24	2,927,300	48
100	107	**Campbell Soup** (Camden, N.J.)[20]	3,988,705	2,437,525	132	197,824	82	1,382,487	98

• Indicates that a corporation was not among the 500 in 1984.
¶ Includes sales from discontinued operations of at least 10%; see the explanation of "sales" on page 232.
N.A. Not available.
* Does not include excise taxes; see the explanation of "sales" on page 232.
** Reflects an extraordinary credit of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.
† Average for the year; see the reference to "employees" on page 232.
‡ Reflects an extraordinary charge of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.
§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.
[17] Figures include G.D. Searle (1984 rank: 266), acquired October 1, 1985.
[18] Figures are for fiscal year ended October 31, 1985.

EMPLOYEES		NET INCOME AS PERCENT OF SALES		NET INCOME AS PERCENT OF STOCKHOLDERS' EQUITY		EARNINGS PER SHARE			EARNINGS PER SHARE 1975-85 GROWTH RATE		TOTAL RETURN TO INVESTORS 1985		TOTAL RETURN TO INVESTORS 1975-85 AVERAGE		INDUSTRY CODE
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK	
39,769	87	6.3	111	19.2§	70	2.84	2.47	0.63	16.31	73	76.98	30	17.14	190	49
53,616	60	2.9	290	6.5	335	2.02	(4.47)	4.65	(7.99)	324	36.58	156	1.11	411	45
56,103	55	—		—		(1.27)**	5.42	4.31	—		10.51	334	6.35	366	28
38,000	95	2.8	299	8.2§	297	1.64	0.97	1.54	0.64	285	7.84	356	2.17	403	26
89,000	33	6.7	97	9.8	277	7.42	5.73	1.28	19.18	51	19.64	272	11.25	295	44
94,022	27	4.3	213	11.0	249	6.16	5.10	1.98	12.02	138	18.58	281	19.32	149	44
93,186	28	—		—		(0.27)	7.14	3.08	—		24.74	227	16.67	198	36
84,000	37	7.5	74	12.3	218	1.91	2.59	0.38	17.60	68	8.58	347	12.33	275	44
74,900	42	9.6	41	18.3	85	3.36	2.75	1.06	12.23	130	46.88	111	7.39	356	42
73,000	44	5.9	130	19.5	66	4.60	2.88	1.17	14.70	96	34.66	168	18.05	173	36
70,400	45	4.4	209	27.7	22	3.15	2.68	0.95	12.73	119	32.37	182	13.12	259	20
43,000	78	2.8	294	6.3	339	1.59	(0.36)	1.82	(1.34)	295	13.39	320	6.92	359	26
77,716	40	5.0	170	9.6	281	5.15	4.17	3.81	3.06	260	34.70	167	6.80	362	44
63,162	46	—		—		(1.63)	4.98	3.19	—		35.29	162	12.07	283	20
30,410	126	1.7	357	19.5§	65	2.65	1.97**	0.24	27.08	15	55.92	85	40.33	12	20
90,200	32	1.3	370	3.2	374	0.61	3.27	0.49	2.28	272	15.80	303	12.89	261	36
43,050	77	3.1	283	9.9	273	3.04	2.89	1.32	8.66	197	35.32	161	22.34	109	20
35,079	104	3.8	243	6.0§	347	1.32	1.52	1.51	(1.34)	294	9.15	344	1.22	409	26
40,100†	85	—		—		(0.23)	3.13	0.92	—		5.43	360	10.11	313	33
44,500†	75	—		—		(4.37)	(2.91)**	5.54	—		(9.61)	417	(3.37)	427	33
46,900	68	4.2	216	23.9	36	4.63	3.63	0.72	20.46	42	25.64	218	29.96	38	41
60,519	52	4.9	177	10.0	270	5.46	5.40	4.14	2.81	263	15.24	305	0.53	413	44
40,600†	83	2.2	331	12.1	223	1.39	0.86	1.73	(2.16)	303	35.89	159	5.95	375	43
56,000	57	5.1	168	15.4	152	6.75	3.11	2.58	10.10	170	48.50	105	14.49	233	41
77,872	39	—		—		(4.76)	13.05	2.71	—		(10.22)	420	2.77	400	36
9,446	299	3.5	263	9.1	284	1.62	1.19	0.86	6.54	223	43.19	132	9.72	323	20
32,700†	111	4.1	228	13.8	180	3.75	3.56	1.50	9.56	180	63.27	65	19.71	145	20
76,546	41	9.0	48	16.8§	105	7.34	7.20	2.81	10.06	171	4.58	366	18.20	170	21
47,237	66	15.3	8	31.3	14	4.70	4.43	1.58	11.52	145	28.[illegible]3	202	10.93	305	42
92,900	29	4.1	229	16.5	119	4.42	3.91	1.38	12.39	125	39.45	143	15.86	208	20
61,900	49	8.6	52	18.1	87	5.43	5.10	1.74	12.05	135	20.05	268	12.49	271	36
58,200	53	6.5	105	31.9	13	7.27	7.32	0.71	26.12	17	31.11	189	32.51	31	36
31,900	115	3.0	289	3.4§	373	2.16	1.88	4.93	(7.92)	323	(2.64)	400	2.71	401	26
35,700	102	12.0	20	21.7	47	3.86	3.45	1.11	13.27	113	27.35	209	16.19	201	42
50,000	63	5.7	143	35.2	7	4.36	(3.88)	0.70	20.13	44	20.40	263	26.31	58	41
51,755	62	1.9	347	7.8	309	2.82	4.53	1.40	7.22	213	(2.28)	398	18.37	168	36
7,600	343	—		—		N.A.	N.A.	N.A.	—		—		—		29
37,500†	97	7.0	90	17.8	91	4.54	4.33	1.43	12.27	128	56.65	80	19.15	153	32
62,000	48	7.3	82	13.6	184	3.15	3.30	0.75	15.47	82	52.03	89	23.73	88	44
39,000	89	3.4	268	10.4	262	2.92	3.98	2.31	2.37	270	29.84	197	13.06	260	20
46,200	69	—		—		(2.58)	1.24	2.07	—		0.26	388	2.38	402	45
30,800	123	1.3	368	5.0	356	0.69	(4.55)‡	2.47	(11.99)	332	(3.85)	406	(3.32)	426	33
11,696	262	—		—		(5.09)	1.78	3.41	—		(18.14)	434	(3.46)	428	29
36,648	100	6.6	104	15.3	156	5.84	4.94	2.20	10.23	167	42.70	133	18.61	163	26
18,311†	192	—		—		N.A.	N.A.	N.A.	—		—		—		29
40,509	84	0.8	383	1.4	388	0.45	1.55	3.01	(17.32)	340	(1.95)	397	3.24	395	45
45,931	72	6.6	102	21.6	50	3.86	3.40	0.98	14.72	95	51.47	94	21.89	117	20
22,552	157	—		—		(1.24)	0.04**	(0.92)	—		(21.43)	438	(6.16)	432	40
39,200	88	14.4	12	19.8	63	3.44	3.06	1.05	12.60	122	21.39	258	16.85	196	42
44,716	74	5.0	174	14.3	173	3.06	2.96	1.30	8.90	191	45.22	121	15.93	206	20

[19] Figures are for fiscal year ended May 31, 1985.
[20] Figures are for fiscal year ended July 31, 1985.
[21] Cooperatives provide only "net margin" figures, which are not comparable with the net income figures in these listings.
[22] Figures are for fiscal year ended August 31, 1985.
[23] Figures are for fiscal year ended April 30, 1985.

RANK		COMPANY	SALES	ASSETS		NET INCOME		STOCKHOLDERS' EQUITY	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	$ THOUSANDS	RANK
101	99	**Borg-Warner** (Chicago)	**3,963,800¶**	**2,822,600**	110	**178,500**	89	**1,652,500**	79
102	95	**Firestone Tire & Rubber** (Akron, Ohio)[18]	**3,836,000**	**2,528,000**	128	**3,000****	401	**1,163,000**	115
103	109	**Dana** (Toledo)	**3,754,440**	**2,424,279**	134	**165,106**	92	**1,194,753**	111
104	79	**International Harvester** (Chicago)[18,24]	**3,751,744**	**2,406,352**	135	**(363,636)****	473	**(669,753)**	491
105	102	**Boise Cascade** (Boise, Idaho)	**3,737,220**	**3,268,460**	96	**104,290**	141	**1,450,026**	92
106	71	**Control Data** (Minneapolis)[7]	**3,679,700**	**3,072,500**	103	**(567,500)**	474	**1,202,600**	110
107	103	**Eaton** (Cleveland)	**3,674,500**	**2,814,200**	111	**230,900**	71	**1,395,300**	97
108	112	**Owens-Illinois** (Toledo)	**3,673,700**	**3,305,800**	93	**156,100**	100	**1,564,000**	87
109	100	**American Cyanamid** (Wayne, N.J.)	**3,665,900**	**3,404,700**	91	**129,100**	124	**1,644,300**	81
110	110	**Merck** (Rahway, N.J.)	**3,547,500**	**4,902,200**	62	**539,900**	28	**2,634,000**	50
111	118	**Quaker Oats** (Chicago)[8]	**3,520,100**	**1,841,900**	170	**156,600**	99	**786,900**	175
112	128	**Whirlpool** (Benton Harbor, Mich.)	**3,474,456**	**1,760,348**	177	**182,319**	88	**1,206,620**	109
113	105	**Reynolds Metals** (Richmond, Va.)	**3,415,600**	**3,646,500**	84	**(291,600)**	469	**1,151,700**	117
114	132	**Time Inc.** (New York)	**3,403,554**	**3,071,615**	104	**199,819**	79	**1,210,511**	108
115	123	**American Standard** (New York)	**3,395,607¶**	**2,269,680**	147	**22,051**	327	**923,846**	155
116	131	**Abbott Laboratories** (North Chicago, Ill.)	**3,360,273**	**3,468,373**	89	**465,335**	37	**1,870,663**	70
117	111	**Kerr-McGee** (Oklahoma City)	**3,345,000**	**3,702,000**	83	**137,000**	116	**1,722,000**	77
118	134	**Owens-Corning Fiberglas** (Toledo)	**3,304,959**	**2,365,850**	140	**131,212**	123	**944,683**	145
119	130	**Eli Lilly** (Indianapolis)	**3,270,600**	**3,953,700**	76	**517,600**	31	**2,387,700**	57
120	119	**FMC** (Chicago)	**3,260,847**	**2,690,722**	119	**196,553**	83	**1,123,100**	120
121	136	**SmithKline Beckman** (Philadelphia)	**3,256,600**	**3,732,500**	81	**514,400**	32	**2,268,100**	62
122	113	**Teledyne** (Los Angeles)	**3,256,200**	**2,766,000**	117	**546,400**	26	**1,577,400**	86
123	115	**B.F. Goodrich** (Akron, Ohio)	**3,250,500**	**2,260,300**	148	**(354,600)**	472	**690,100**	195
124	117	**United Brands** (New York)[14]	**3,220,307**	**1,012,155**	257	**23,119**	323	**364,350**	299
125	126	**Warner-Lambert** (Morris Plains, N.J.)	**3,200,069**	**2,358,100**	141	**(315,596)**	471	**891,192**	165
126	116	**Inland Steel** (Chicago)	**3,186,122**	**2,631,533**	126	**(178,378)**	460	**958,428**	143
127	133	**Combustion Engineering** (Stamford, Conn.)	**3,110,818¶**	**2,161,118**	152	**(95,413)**	447	**664,104**	202
128	129	**Crown Zellerbach** (San Francisco)	**3,083,000**	**2,405,500**	136	**(26,800)**	426	**1,128,400**	119
129	180	**Cooper Industries** (Houston)[25]	**3,067,169**	**3,635,873**	85	**135,080**	118	**1,318,001**	101
130	137	**Scott Paper** (Philadelphia)	**3,049,500**	**3,517,200**	87	**201,100**	77	**1,190,500**	112
131	146	**Grumman** (Bethpage, N.Y.)	**3,048,520**	**1,585,773**	195	**82**	407	**603,459**	217
132	120	**Celanese** (New York)	**3,046,000**	**2,809,000**	113	**178,000**	90	**1,017,000**	131
133	127	**Avon Products** (New York)	**3,040,700¶**	**2,289,000**	145	**(59,900)**	440	**926,400**	153
134	140	**GenCorp** (Akron, Ohio)[26]	**3,020,748**	**2,072,809**	157	**75,213**	182	**950,516**	144
135	139	**Times Mirror** (Los Angeles)	**2,946,710**	**2,700,678**	118	**237,127**	70	**974,415**	141
136	197	**Chesebrough-Pond's** (Westport, Conn.)[27]	**2,941,460**	**3,008,050**	106	**82,174**	166	**711,095**	191
137	170	**Staley Continental** (Rolling Meadows, Ill.)[10,28]	**2,937,862**	**1,632,382**	188	**6,655**	388	**658,540**	203
138	143	**Kellogg** (Battle Creek, Mich.)	**2,930,100**	**1,726,100**	183	**281,100**	61	**683,000**	198
139	135	**Swift Independent** (Chicago)[10]	**2,892,090**	**308,221**	454	**(550)**	409	**117,928**	448
140	124	**American Can** (Greenwich, Conn.)[7]	**2,854,800**	**3,083,600**	101	**149,100**	102	**1,266,600**	105
141	125	**Burlington Industries** (Greensboro, N.C.)[10]	**2,802,134**	**2,138,643**	154	**12,574**	370	**1,150,779**	118
142	141	**Mead** (Dayton, Ohio)	**2,740,400**	**2,245,000**	150	**93,500**	153	**1,033,600**	128
143	114	**Kaiser Aluminum & Chemical** (Oakland, Calif.)	**2,701,700¶**	**3,261,100**	97	**(186,500)**	461	**1,122,700**	121
144	●	**Valero Energy** (San Antonio)	**2,661,600**	**1,994,879**	164	**34,700**	277	**482,942**	253
145	151	**Ingersoll-Rand** (Woodcliff Lake, N.J.)	**2,637,421**	**2,242,800**	151	**79,581**	174	**1,031,960**	129
146	142	**Interco** (St. Louis)[9]	**2,625,746**	**1,535,241**	200	**72,163**	191	**1,064,764**	126
147	144	**Hercules** (Wilmington, Del.)	**2,587,213**	**2,658,822**	123	**133,161**	120	**1,474,201**	90
148	149	**Levi Strauss** (San Francisco)[26]	**2,584,000**	**2,128,300**	155	**N.A.**		**N.A.**	
149	274	**BASF** (Parsippany, N.J.)[29,30]	**2,568,121**	**2,277,059**	146	**38,952‡**	259	**928,654**	152
150	138	**Fruehauf** (Detroit)	**2,564,178**	**1,803,737**	173	**70,533**	196	**617,812**	213

● Indicates that a corporation was not among the 500 in 1984.

¶ Includes sales from discontinued operations of at least 10%; see the explanation of "sales" on page 232.

N.A. Not available.

** Reflects an extraordinary credit of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

† Average for the year; see the reference to "employees" on page 232.

‡ Reflects an extraordinary charge of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[24] Name changed to Navistar International February 20, 1986.

[25] Figures include McGraw-Edison (1984 rank: 218), acquired May 31, 1985.

[26] Figures are for fiscal year ended November 30, 1985.

[27] Figures include Stauffer Chemical (1984 rank:235), acquired March 28, 1985.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE		
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK	
86,400†	35	4.5	200	10.8	252	2.01	2.28	0.58	13.28	112	16.05	301	21.39	126	40
54,700	58	0.1	406	0.3	401	0.06**	2.21**	2.36	(30.73)	349	44.30	125	5.10	381	30
38,200	94	4.4	206	13.8	179	2.95	3.40	1.42	7.59	209	3.70	372	10.02	315	40
16,836	206	—		—		(2.90)**	(1.34)	2.77	—		4.62	365	(6.49)	434	40
22,960	155	2.8	298	7.2	324	3.45	2.23	2.16	4.79	239	19.32	275	11.23	297	26
38,856	91	—		—		(14.56)	0.81	1.22	—		(40.34)	456	9.84	318	44
41,134	81	6.3	115	16.6	115	7.01	7.85	1.77	14.73	94	22.11	246	16.10	202	36
44,048	76	4.3	215	10.0	268	5.23	4.70	3.01	5.68	229	33.01	181	9.96	316	32
36,432	101	3.5	261	7.9	307	2.68	4.41	3.09	(1.41)	298	17.89	291	13.34	252	28
30,900	121	15.2	9	20.5	57	7.58	6.71	3.03	9.60	178	49.27	100	9.90	317	42
28,700	131	4.5	202	19.4§	68	3.76	3.38	0.72	17.89	66	51.68	91	19.94	141	20
25,524	142	5.3	157	15.1	157	4.98	5.18	1.63	11.82	141	9.29	341	11.12	301	36
27,400†	134	—		—		(13.65)	6.36	3.29	—		14.84	307	9.83	319	33
19,000	184	5.9	128	16.5	118	3.15	3.37	1.13	10.80	160	45.88	115	16.74	197	27
40,000	86	0.7	388	2.4	380	0.56	2.60	1.27	(7.86)	321	29.97	196	20.75	131	45
34,742	105	13.9	16	24.9	31	3.88	3.34	0.64	19.70	46	64.68	62	22.20	112	42
8,351	319	4.1	230	8.0	305	2.62	1.22	2.57	0.17	287	23.89	235	1.62	407	29
25,200†	145	4.0	235	13.9	177	4.42	3.87	1.40	12.14	132	19.15	277	7.79	349	32
28,000	133	15.8	5	21.7	48	3.69	3.36	1.31	10.91	159	73.40	34	11.63	290	42
28,064	132	6.0	122	17.5	97	7.54	1.21	3.24	8.81	195	18.93	279	16.97	193	28
32,824	109	15.8	6	22.7	42	6.56	6.23	1.07	19.88	45	46.12	114	19.28	152	42
47,200	67	16.8	3	34.6	8	46.66	37.69	2.57	33.65	10	34.30	171	42.97	7	45
26,191	138	—		—		(15.79)	2.52	1.65	—		25.70	216	11.23	296	30
41,000	82	0.7	385	6.4	336	1.64	3.43	0.80	7.44	210	158.62	3	19.58	147	20
33,000	107	—		—		(4.05)	2.81	2.08	—		40.19	139	6.91	361	42
24,413†	149	—		—		(7.37)	(1.97)	4.43	—		(1.67)	394	(1.61)	421	33
24,761	147	—		—		(2.87)	3.00	1.39	—		(2.54)	399	13.64	241	45
16,890	205	—		—		(1.56)	2.61	3.01	—		23.97	233	5.65	378	26
46,000	70	4.4	204	10.3	265	2.79	2.13	1.51	6.30	225	49.60	99	15.01	223	36
17,403	200	6.6	101	16.9	103	4.52	3.83	1.87	9.23	186	49.21	101	17.58	181	26
32,000	113	—	407	—		2.65	3.62	1.54	5.58	231	17.90	290	20.59	133	41
18,500	190	5.8	132	17.5	96	13.70	10.87	3.30	15.30	85	89.30	19	18.67	162	28
38,400	93	—		—		(0.76)‡	2.16	2.40	—		33.29	178	3.09	397	43
27,000	136	2.5	316	—		3.43	0.32	2.31	4.02	248	109.61	8	21.45	125	30
30,585	124	8.1	65	24.3	33	3.49	3.38	0.70	17.43	69	44.23	126	23.32	90	27
25,719	140	2.8	297	11.6	238	2.35	3.40	1.50	4.56	243	29.09	201	5.69	377	43
8,741	313	0.2	403	0.8§	398	0.19	1.26	3.15	(24.49)	347	29.09	200	5.99	372	20
17,082	201	9.6	40	41.2	3	2.28	1.67	0.70	12.53	123	77.36	28	17.51	184	20
6,381	375	—		—		(0.11)	2.32	N.A.	—		2.86	376	—		20
25,600†	141	5.2	159	9.8§	278	5.06	4.90	4.17	1.95	275	22.42	244	12.76	265	34
45,000	73	0.5	396	1.1	394	0.44	2.18	1.43	(11.12)	331	30.29	192	6.51	364	22
17,500	198	3.4	265	9.1	286	3.02	4.54	2.05	3.97	249	31.46	187	17.47	185	26
13,454†	231	—		—		(4.33)	(1.27)	2.39	—		16.67	295	4.79	384	33
2,233	482	1.3	372	6.8§	329	1.06	(1.14)	N.A.	—		120.00	7	—		29
34,740	106	3.0	286	7.7	311	3.78	2.70	6.42	(5.16)	310	21.60	252	1.63	406	45
48,000	65	2.8	301	6.8	330	4.45	7.02	4.60	(0.33)	290	22.57	243	10.67	307	23
25,448	143	5.2	163	9.0	287	2.40	3.54	0.77	12.04	136	19.85	271	8.00	344	28
37,000	99	—		—		N.A.	1.07	1.47	—		—		—		23
20,781	170	1.5	362	4.2	364	N.A.	N.A.	N.A.	—		—		—		28
26,500	137	2.8	300	11.4	242	3.52	4.31	1.41	9.61	177	12.86	322	12.20	281	40

[28] Name changed from A. E. Staley Manufacturing February 11, 1985.

[29] Figures include Badische (1984 rank: 377).

[30] Name changed from BASF Wyandotte January 1, 1986.

[31] Wholly owned by BASF AG (1984 International 500 rank: 22).

RANK 1985	RANK 1984	COMPANY	SALES $ THOUSANDS	ASSETS $ THOUSANDS	ASSETS RANK	NET INCOME $ THOUSANDS	NET INCOME RANK	STOCKHOLDERS' EQUITY $ THOUSANDS	STOCKHOLDERS' EQUITY RANK
151	145	**Penn Central** (Greenwich, Conn.)	2,527,300	2,873,900	109	110,800	135	1,825,900	72
152	156	**USG** (Chicago)[32]	2,526,453	1,731,572	182	223,797	73	984,331	139
153	158	**James River Corp. of Virginia** (Richmond, Va.)[28]	2,492,009	1,740,890	180	101,351	144	581,826	222
154	152	**Revlon** (New York)	2,450,708¶	2,354,808	142	N.A.		N.A.	
155	157	**Kidde** (Saddle Brook, N.J.)	2,417,212¶	1,689,435	186	72,245	189	721,359	187
156	148	**Singer** (Stamford, Conn.)	2,416,300	1,392,100	213	82,300	165	563,600	227
157	173	**American Petrofina** (Dallas)	2,408,502	1,817,256	172	(10,163)	418	624,513	210
158	160	**Gillette** (Boston)	2,400,000	2,424,600	133	159,900	97	898,300	163
159	187	**Lear Siegler** (Santa Monica, Calif.)[5]	2,370,715	1,490,317	204	100,735	146	642,199	206
160	207	**Baxter Travenol Laboratories** (Deerfield, Ill.)	2,355,000	6,839,000	41	137,000	115	2,963,000	46
161	165	**Wang Laboratories** (Lowell, Mass.)[5]	2,351,700	2,375,900	139	15,500	354	1,248,300	106
162	201	**Hanson Industries North America** (Iselin, N.J.)[10,33]	2,289,832	1,260,491	232	110,947	134	233,464	368
163	182	**Harris** (Melbourne, Fla.)[8]	2,281,220	1,788,530	175	80,287	172	867,710	169
164	161	**Land O'Lakes** (Arden Hills, Minn.)	2,267,148	642,323	340	N.A.[21]		223,120	373
165	150	**Engelhard** (Edison, N.J.)	2,263,697	935,929	273	42,660	250	312,277	239
166	162	**Jim Walter** (Tampa, Fla.)[22]	2,255,498	2,806,331	114	111,670	132	906,321	159
167	147	**Pennzoil** (Houston)	2,238,712	3,299,556	94	113,204	130	752,849	183
168	214	**Cabot** (Boston)[10]	2,217,880¶	1,594,712	193	(86,375)	446	625,711	208
169	167	**Murphy Oil** (El Dorado, Ark.)	2,197,638	2,660,825	121	79,704	173	1,014,391	133
170	177	**Sherwin-Williams** (Cleveland)	2,194,925	1,055,813	252	74,638	183	465,367	261
171	154	**Allegheny International** (Pittsburgh)	2,180,059	1,507,279	203	(109,143)	450	176,109	407
172	185	**SCM** (New York)[5]	2,175,438	1,361,343	218	41,776	254	554,668	229
173	186	**Gannett** (Arlington, Va.)	2,151,605	2,313,218	144	253,277	66	1,275,213	104
174	155	**Cummins Engine** (Columbus, Ind.)	2,146,272	1,705,063	185	50,355	232	764,558	182
175	164	**Uniroyal** (Middlebury, Conn.)	2,115,000	1,523,000	202	N.A.		N.A.	
176	166	**Upjohn** (Kalamazoo, Mich.)	2,105,175	2,376,873	138	202,955	76	1,295,085	103
177	206	**Lever Brothers** (New York)[34]	2,099,348	735,447	312	(38,529)	431	194,218	392
178	174	**Mack Trucks** (Allentown, Pa.)	2,063,312	1,061,822	249	(59,216)	439	535,811	234
179	179	**Rohm & Haas** (Philadelphia)	2,051,200	1,733,800	181	141,200	111	936,200	150
180	191	**Squibb** (Princeton, N.J.)	2,041,745	2,452,968	130	226,599	72	1,465,758	91
181	203	**R.R. Donnelley & Sons** (Chicago)	2,038,408	1,593,345	194	148,414	103	895,903	164
182	190	**Hershey Foods** (Hershey, Pa.)	2,035,254	1,197,432	238	112,227	131	727,899	185
183	153	**AMAX** (Greenwich, Conn.)	1,985,700	3,561,400	86	(621,000)	477	726,900	186
184	168	**National Distillers & Chemical** (New York)	1,964,600*	2,019,900	161	77,200	179	905,200	160
185	181	**Morton Thiokol** (Chicago)[5]	1,957,700	1,368,200	217	197,900	81	704,800	193
186	172	**White Consolidated Industries** (Cleveland)	1,946,203	1,139,936	240	34,103	280	498,128	248
187	209	**Tribune** (Chicago)	1,937,878	2,445,924	131	123,844	125	908,486	157
188	194	**Great Northern Nekoosa** (Stamford, Conn.)	1,934,800	1,967,700	165	46,200	239	962,900	142
189	193	**Schering-Plough** (Madison, N.J.)	1,927,100	2,773,200	116	192,600	85	1,479,000	89
190	213	**Libbey-Owens-Ford** (Toledo)	1,921,981	1,337,495	220	74,634	184	716,252	189
191	234	**Apple Computer** (Cupertino, Calif.)[10]	1,918,280	963,177	268	61,223	204	550,487	231
192	175	**Mapco** (Tulsa)	1,907,670	1,610,953	190	104,065	143	437,691	271
193	199	**Baker International** (Orange, Calif.)[10]	1,904,321	2,014,860	162	87,741	158	1,010,166	137
194	163	**PACCAR** (Bellevue, Wash.)	1,893,184	1,057,450	251	72,919	188	714,636	190
195	178	**Olin** (Stamford, Conn.)	1,890,906	1,597,781	191	(165,354)	456	686,529	197
196	184	**Alumax** (San Mateo, Calif.)	1,887,072	1,712,777	184	62,876	202	786,301	176
197	171	**Ogden** (New York)	1,881,846	834,276	291	(21,641)	425	308,442	319
198	204	**Manville** (Denver)	1,880,048	2,393,247	137	(45,067)	434	878,226	168
199	198	**Hammermill Paper** (Erie, Pa.)	1,876,914	1,278,027	229	28,913	302	536,872	233
200	183	**Union Camp** (Wayne, N.J.)	1,865,871	2,660,609	122	95,092	151	1,315,092	102

¶ Includes sales from discontinued operations of at least 10%; see the explanation of "sales" on page 232.

N.A. Not available.

* Does not include excise taxes; see the explanation of "sales" on page 232.

** Reflects an extraordinary credit of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

† Average for the year; see the reference to "employees" on page 232.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[32] Name changed from U.S. Gypsum January 1, 1985.

[33] Wholly owned by Hanson Trust PLC (1984 International 500 rank: 153).

[34] Wholly owned by Unilever (1984 International 500 rank: 6).

[35] Figure is for Morton-Norwich Products.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE		
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK	
31,000	120	4.4	207	6.1	344	2.76	3.82	(225.67)	—		7.98	355	8.28	343	33
22,100†	164	8.9	50	22.7	41	6.71	5.63	0.82	23.32	27	73.45	33	25.64	64	32
23,300	151	4.1	233	17.0§	101	3.18	3.40	0.34	24.99	22	38.30	148	34.43	27	26
22,500	158	—		—		N.A.	2.99	2.17	—		64.27	63	5.96	374	43
32,000	114	3.0	288	10.0§	271	3.31	3.75	2.09	4.68	242	21.94	250	17.95	176	36
46,000	71	3.4	266	14.6	166	4.30	3.41**	(27.68)	—		44.88	122	17.57	182	36
3,439	467	—		—		(0.85)	4.00	3.77	—		(23.61)	443	8.74	334	29
31,400	116	6.7	99	17.8	90	5.18	5.18	2.66	6.89	217	26.11	212	12.57	269	34
29,725	128	4.3	214	15.7	142	5.51	4.96	1.24	16.08	75	12.59	323	27.67	47	38
61,000	50	5.8	133	4.6	361	0.85	0.21	0.36	8.97	189	20.67	259	5.57	379	42
31,061	119	0.7	387	1.2	391	0.11	1.52	0.04	10.19	168	(24.12)	444	39.35	13	44
22,427	159	4.9	179	47.5	2	N.A.	N.A.	N.A.	—		—		—		20
31,400	117	3.5	262	9.3	283	2.00	2.02	0.03	49.86	2	1.22	384	13.24	255	36
5,602	401	—		—		N.A.	N.A.	N.A.	—		—		—		20
7,100	358	1.9	344	8.3	294	1.58	1.72	N.A.	—		(11.02)	423	—		28
17,700	196	5.0	175	12.3	217	5.11	4.45	3.21	4.77	240	40.34	137	7.89	346	32
8,300	321	5.1	166	12.5§	213	2.20	2.23	2.03	0.82	281	62.34	66	22.86	100	29
7,700	339	—		—		(2.70)	3.02	0.44	—		(3.75)	405	25.29	69	28
5,670	399	3.6	256	7.9	306	2.25	2.63	1.07	7.75	206	14.58	309	19.59	146	29
19,458	179	3.4	267	16.0	134	1.61	1.42	0.64	9.69	175	59.74	71	20.90	129	28
30,800	122	—		—		(0.26)	(2.51)	3.35	—		(10.36)	421	4.30	387	36
20,000	176	1.9	342	7.5	320	4.20	4.24	3.05	3.25	257	75.08	32	25.80	62	28
29,889	127	11.8	21	19.9	62	3.16	2.80	0.81	14.60	97	31.55	186	18.00	175	27
19,624	178	2.4	324	6.6	333	5.27	19.76	(0.21)	—		(5.14)	408	17.94	177	45
19,000	185	—		—		N.A.	2.13**	0.68	—		—		—		30
20,600	171	9.6	39	15.7	144	3.29	2.83	1.13	11.28	152	94.38	15	15.59	212	42
4,918	430	—		—		N.A.	N.A.	N.A.	—		—		—		43
12,192	255	—		—		(2.07)	2.29**	N.A.	—		(24.78)	446	—		40
11,840	259	6.9	93	15.1	158	6.02	6.73	0.90	20.93	37	21.40	256	13.42	248	28
23,647	150	11.1	24	15.5	150	4.20	3.68	2.18	6.78	220	51.56	92	12.41	273	42
19,100	181	7.3	83	16.6	114	3.88	3.50	0.93	15.29	86	30.90	190	22.94	98	27
15,240	218	5.5	147	15.4	151	3.58	3.47	1.26	10.96	158	34.79	166	23.16	94	20
10,651	278	—		—		(9.35)	(3.86)	2.95	—		(15.90)	432	(5.87)	431	10
10,606	280	3.9	237	7.6§	314	2.28	1.41	2.51	(0.96)	292	40.52	136	14.45	234	28
17,900	194	10.1	34	28.1	20	4.01	2.17	0.47**	24.00	25	34.90	164	27.31	50	28
18,444	191	1.8	351	6.5§	334	2.05	(5.13)	3.72	(5.78)	313	25.13	222	10.96	303	36
15,000	220	6.4	110	13.6	183	3.06	2.55	N.A.	—		64.81	61	—		27
13,900†	227	2.4	320	4.8	358	1.78	4.60	2.07	(1.48)	300	19.28	276	13.62	242	26
23,200	152	10.0	36	13.0	199	3.77	3.50	2.57	3.91	250	65.71	56	4.47	385	42
26,068	139	3.9	240	10.4	260	5.71	5.82	2.43	8.92	190	11.77	327	13.13	258	32
4,300	448	3.2	279	11.1	247	0.99	1.05	N.A.	—		(24.46)	445	—		44
5,197	424	5.5	150	23.8	37	3.60	4.11	2.64	3.15	259	48.51	104	3.97	390	29
20,578	172	4.6	196	8.7	290	1.25	1.00	0.86	3.84	251	8.83	346	4.80	383	45
8,683	315	3.9	241	10.2	267	4.02	6.91	1.14	13.47	109	5.12	363	26.58	56	40
14,900	221	—		—		(7.19)	3.81	2.51	—		25.98	[illegible]	12.20	280	28
13,300	235	3.3	272	8.0	303	N.A.	N.A.	N.A.	—		—		—		33
39,000	90	—		—		(1.16)	2.05	3.08	—		20.36	264	17.89	178	37
21,000	167	—		—		(2.92)	2.18	2.04	—		2.13	380	(9.15)	436	32
13,000	238	1.5	361	4.7§	360	1.73	3.78	1.47	1.62	278	16.53	296	17.72	179	26
17,457	199	5.1	164	7.2	322	1.95	3.72	1.96	(0.03)	289	13.68	315	7.90	345	26

RANK		COMPANY	SALES	ASSETS		NET INCOME		STOCKHOLDERS' EQUITY	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	$ THOUSANDS	RANK
201	169	**J.P. Stevens** (New York)[10]	1,858,190	1,200,338	237	(15,493)	420	501,807	245
202	196	**Sterling Drug** (New York)	1,848,319	1,617,790	189	109,709	136	936,445	149
203	195	**Colt Industries** (New York)	1,839,021¶	1,250,544	233	138,033	114	414,304	284
204	217	**Pitney Bowes** (Stamford, Conn.)	1,831,804	1,762,768	176	150,357	101	802,847	172
205	215	**Air Products & Chemicals** (Allentown, Pa.)[10]	1,829,588	2,593,455	127	143,484	107	1,162,978	116
206	233	**Anderson Clayton** (Houston)[5]	1,825,145	939,752	272	16,548	347	570,209	225
207	202	**Koppers** (Pittsburgh)	1,819,701¶	1,066,053	248	(101,071)	449	435,056	273
208	210	**General Signal** (Stamford, Conn.)	1,800,878	1,483,232	205	49,267	235	903,989	161
209	225	**National Semiconductor** (Santa Clara, Calif.)[19]	1,787,500	1,410,500	209	43,200**	248	681,200	199
210	243	**Johnson Controls** (Milwaukee)[10,36]	1,787,049	1,789,253	174	78,290	176	765,331	181
211	208	**Emhart** (Farmington, Conn.)	1,775,400	1,523,300	201	80,500	170	609,400	215
212	232	**Black & Decker** (Towson, Md.)[10,37]	1,732,278	1,452,146	208	(158,425)	455	504,848	242
213	224	**Knight-Ridder Newspapers** (Miami)	1,729,613	1,394,333	212	132,724	122	696,576	194
214	219	**National Gypsum** (Dallas)	1,724,655¶	1,050,967	253	87,649	159	594,339	219
215	211	**Westvaco** (New York)[10]	1,721,783	1,922,972	167	104,625	140	1,012,860	135
216	●	**Triangle Industries** (New York)[38]	1,693,223	1,477,902	206	36,823	267	101,568	460
217	216	**Corning Glass Works** (Corning, N.Y.)	1,690,500	2,032,400	160	133,300	119	1,185,600	113
218	238	**Joseph E. Seagram & Sons** (New York)[39,40]	1,683,860*	5,035,603	59	314,166	53	3,058,021	43
219	228	**Armstrong World Industries** (Lancaster, Pa.)	1,679,213	1,092,628	245	100,892	145	733,372	184
220	●	**Texas Oil & Gas** (Dallas)[22]	1,676,047	3,818,148	79	276,761	62	1,748,787	74
221	212	**American Hoechst** (Somerville, N.J.)	1,661,319¶	1,318,820	221	5,717	391	688,658	196
222	200	**Central Soya** (Fort Wayne, Ind.)[22]	1,639,948¶	524,869	376	7,417	385	N.A.	
223	205	**AMP** (Harrisburg, Pa.)	1,636,112	1,549,312	197	108,003	138	996,860	138
224	231	**International Minerals & Chemical** (Northbrook, Ill.)[5]	1,627,300	1,957,200	166	119,600	126	1,092,000	124
225	220	**Zenith Electronics** (Glenview, Ill.)	1,623,700	927,300	276	(7,700)	415	437,200	272
226	222	**Marmon Group** (Chicago)	1,623,232	965,131	267	54,341	223	413,863	285
227	229	**Mobay** (Pittsburgh)[41]	1,598,900	1,215,200	236	77,100	180	622,700	211
228	310	**CBI Industries** (Oak Brook, Ill.)	1,571,491	1,128,210	242	(46,964)	435	500,013	246
229	223	**Ethyl** (Richmond, Va.)	1,547,034	1,556,175	196	117,146	127	789,626	173
230	242	**Farley/Northwest Industries** (Chicago)[42]	1,538,700¶	1,842,800	169	N.A.		N.A.	
231	239	**Brunswick** (Skokie, Ill.)	1,538,538	1,002,172	259	100,314	147	523,186	237
232	192	**Wilson Foods** (Oklahoma City)[20]	1,533,155	242,978	479	(16,185)	421	50,100	479
233	230	**Gould** (Rolling Meadows, Ill.)	1,520,300	1,387,700	214	(175,700)	459	674,000	201
234	189	**Tosco** (Santa Monica, Calif.)	1,513,094	629,315	347	8,867	381	(187,835)	490
235	240	**Geo. A. Hormel** (Austin, Minn.)[10]	1,502,235	560,939	362	38,618	261	311,605	318
236	227	**Gold Kist** (Atlanta)[5]	1,499,740	437,033	414	N.A.[21]		126,724	441
237	245	**McGraw-Hill** (New York)	1,491,208	1,273,911	230	147,404	104	776,674	178
238	246	**Crown Cork & Seal** (Philadelphia)	1,487,143	865,835	287	71,725	194	531,541	235
239	278	**VF** (Wyomissing, Pa.)	1,481,182	860,193	288	139,417	112	554,223	230
240	221	**Crown Central Petroleum** (Baltimore)	1,473,253	484,287	396	4,098	394	191,634	396
241	241	**Monfort of Colorado** (Greeley, Colo.)[22]	1,462,768	212,504	487	14,510	362	91,967	464
242	256	**Parker Hannifin** (Cleveland)[5]	1,459,518	966,386	266	84,135	163	577,167	223
243	236	**Witco** (New York)[43]	1,448,929	810,292	297	56,774	218	415,410	283
244	259	**Dover** (New York)	1,439,548	1,017,019	255	100,028	148	625,541	209
245	252	**Tektronix** (Beaverton, Ore.)[19]	1,438,082	1,224,372	235	90,181	155	855,038	171
246	248	**NL Industries** (New York)	1,422,995	1,596,537	192	21,533	330	785,556	177
247	247	**Square D** (Palatine, Ill.)	1,402,201	1,103,129	244	87,188	160	606,139	216
248	270	**New York Times** (New York)	1,393,772	1,295,534	227	116,318	128	588,363	221
249	262	**Cyclops** (Pittsburgh)	1,385,718	539,567	373	26,228	311	216,445	376
250	237	**Farmers Union Central Exchange** (St. Paul)[10]	1,375,813	690,550	322	N.A.[21]		300,547	324

● Indicates that a corporation was not among the 500 in 1984.

¶ Includes sales from discontinued operations of at least 10%; see the explanation of "sales" on page 232.

N.A. Not available.

* Does not include excise taxes; see the explanation of "sales" on page 232.

** Reflects an extraordinary credit of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

† Average for the year; see the reference to "employees" on page 232.

‡ Reflects an extraordinary charge of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[36] Figures include Hoover Universal (1984 rank: 340), acquired May 11, 1985.

[37] Name changed from Black & Decker Manufacturing January 28, 1985.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE		
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK	
27,200	135	—		—		(0.89)	1.23	1.41	—		82.51	23	12.78	264	22
21,300	166	5.9	125	11.7	231	1.83	2.37	1.39	2.79	264	33.74	175	11.31	293	42
19,700	177	7.5	76	33.3	10	6.91	5.99	2.36	11.36	151	22.38	245	24.17	81	40
28,995	130	8.2	59	18.7	80	3.80	3.51	0.97	14.57	98	38.05	149	24.96	73	44
18,700	187	7.8	67	12.3	216	4.75	4.55	1.93	9.41	181	40.90	135	7.75	351	28
13,870	228	0.9	380	2.9	377	1.36	3.11	2.51	(5.94)	314	58.47	77	14.73	228	20
11,128†	271	—		—		(3.72)	0.97	2.49	—		18.69	280	4.14	389	28
22,312	161	2.7	303	5.5	352	1.72	3.80	1.59	0.79	283	0.40	387	12.36	274	38
37,100	98	2.4	319	6.3	337	0.48**	0.75**	0.30	4.89	238	5.26	362	3.21	396	36
29,000	129	4.4	208	10.2	266	4.80	4.71	1.08	16.03	77	20.59	261	25.15	71	36
30,422	125	4.5	198	13.2	194	2.90	3.27	1.33	8.13	199	11.51	330	18.91	157	34
22,400	160	—		—		(3.11)	1.95	0.85	—		(6.25)	410	2.08	405	45
22,200	162	7.7	72	19.1	74	2.19	2.15	0.50	15.80	78	37.00	152	20.08	139	27
13,422	232	5.1	165	14.8	163	3.79	4.57	0.91	15.38	84	76.23	31	24.75	76	32
15,080	219	6.1	120	10.3	263	3.65	4.60	1.56	8.87	192	15.21	306	14.10	236	26
12,300	252	2.2	332	33.2§	11	3.35	0.64	0.61	18.53	58	315.49	1	23.99	83	34
24,600	148	7.9	66	11.2	244	3.13	2.38**	0.88	13.53	107	81.88	24	14.08	238	32
9,900	292	18.7	2	10.3	264	N.A.	N.A.	N.A.	—		—		—		49
20,781†	169	6.0	124	13.8	181	4.20	3.79	1.34	12.10	133	35.77	160	10.94	304	22
3,629	463	16.5	4	15.8	139	1.32	1.65	0.19	21.23	36	(13.90)	427	29.19	39	10
8,830	307	0.3	397	0.8	397	N.A.	N.A.	N.A.	—		—		—		28
5,379	412	0.5	395	—		N.A.	1.51	1.37**	—		—		—		20
22,800	156	6.6	100	10.8	251	1.00	1.87	0.25	14.87	91	8.55	348	17.01	191	36
8,700	314	7.4	81	11.0	250	4.39	3.04	6.78	(4.25)	306	(3.61)	404	7.84	348	10
33,000	108	—		—		(0.33)	2.88	1.64	—		3.80	371	1.42	408	36
17,800	195	3.4	270	11.5§	240	N.A.	N.A.	N.A.	—		—		—		33
5,948	391	4.8	182	12.4	215	N.A.	N.A.	N.A.	—		—		—		28
12,263	254	—		—		(2.18)	2.09	2.10	—		(18.88)	435	(1.44)	419	34
10,500	281	7.6	73	14.7§	165	1.83	1.72	0.76	9.17	187	70.99	39	24.66	78	28
N.A.	183	—		—		N.A.	3.75	5.78	—		—		—		33
19,200	180	6.5	106	19.2	71	2.34	2.21	0.23	25.84	19	30.01	195	27.14	52	45
5,600	403	—		—		(2.71)	4.34**	N.A.	—		(37.84)	453	—		20
18,605	189	—		—		(3.94)	0.40	2.56	—		46.95	110	8.53	339	44
990	492	0.6	389	—		0.29	(10.19)	(0.20)	—		287.50	2	4.90	382	29
6,996	361	2.6	311	12.4	214	2.01	1.53	0.69	11.20	154	69.70	43	22.62	105	20
8,789	311	—		—		N.A.	N.A.	N.A.	—		—		—		20
14,345	224	9.9	37	19.0	77	2.92	2.86	0.67	15.77	81	13.56	318	25.83	61	27
12,523	245	4.8	180	13.5	189	6.52	4.78	2.43	10.37	166	98.07	12	18.17	171	34
32,582	112	9.4	42	25.2	29	4.50	3.92	0.68	20.85	39	95.82	14	28.58	40	23
5,637	400	0.3	401	2.1	382	0.46	(0.12)**	1.14	(6.69)	326	63.64	64	14.39	235	29
3,629	462	1.0	378	15.8	140	3.31	3.48	1.90	5.71	228	60.99	68	17.17	189	20
23,064	153	5.8	136	14.6	168	3.06	2.68	1.47	7.60	208	23.68	237	17.20	188	34
8,060	329	3.9	238	13.7	182	3.85	4.28	1.09	13.42	110	20.03	269	19.46	148	29
16,701	208	7.0	91	16.0	136	2.83	2.82	0.68	15.24	88	18.20	286	22.79	101	45
20,525	173	6.3	116	10.6	258	4.41	6.15	1.52	11.24	153	(1.82)	396	10.44	309	38
12,332	251	1.5	363	2.4§	381	0.30	(2.33)	0.94	(10.84)	330	23.50	239	10.73	306	28
22,100	163	6.2	117	14.4	171	3.02	3.71	1.50	7.25	211	12.03	325	12.27	277	36
10,350	283	8.4	56	19.8	64	2.90	2.53	0.38	22.43	29	28.14	205	31.80	34	27
8,800	310	1.9	343	12.1	222	6.66	4.82	(2.53)	—		43.40	130	22.08	116	33
2,829	475	—		—		N.A.	N.A.	N.A.	—		—		—		29

[38] Figures include National Can (1984 rank: 188), acquired April 16, 1985.

[39] Wholly owned by Seagram (1984 International 500 rank: 270).

[40] Figures are for fiscal year ended January 31, 1985.

[41] Name changed from Mobay Chemical December 23, 1985.

[42] Name changed from Northwest Industries July 31, 1985.

[43] Name changed from Witco Chemical October 1, 1985.

RANK		COMPANY	SALES	ASSETS		NET INCOME		STOCKHOLDERS' EQUITY	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	$ THOUSANDS	RANK
251	226	**Intel** (Santa Clara, Calif.)	1,364,982	2,151,865	153	1,570	405	1,421,481	94
252	●	**Pacific Resources** (Honolulu)	1,363,755	544,466	371	18,162‡	338	154,661	422
253	250	**Fort Howard Paper** (Green Bay, Wis.)	1,363,292	1,536,869	199	157,010	98	1,115,225	122
254	255	**Mid-America Dairymen** (Springfield, Mo.)	1,344,280	299,158	460	N.A.[21]		118,666	447
255	257	**Amstar** (New York)[5]	1,314,360	546,306	370	29,161	301	155,642	420
256	275	**Perkin-Elmer** (Norwalk, Conn.)[20]	1,304,612	1,134,983	241	82,133	167	619,328	212
257	263	**Polaroid** (Cambridge, Mass.)	1,295,200	1,384,700	215	36,900	266	922,200	156
258	298	**Sundstrand** (Rockford, Ill.)	1,284,141	1,311,179	225	74,448	185	589,129	220
259	285	**Adolph Coors** (Golden, Colo.)	1,281,122*	1,296,707	226	53,416	226	936,461	148
260	244	**Fleetwood Enterprises** (Riverside, Calif.)[23]	1,276,779	397,438	426	53,573	224	258,521	350
261	261	**NVF** (Yorklyn, Del.)	1,274,835[44]	980,202[45]	264	N.A.		N.A.	
262	284	**Thomas J. Lipton** (Englewood Cliffs, N.J.)[24]	1,269,769	777,871	305	80,426	171	460,796	265
263	258	**Federal Co.** (Memphis)[19]	1,268,038	380,619	438	35,604	273	243,965	359
264	287	**Harsco** (Wormleysburg, Pa.)	1,261,193	823,898	294	60,458	207	467,687	258
265	271	**Hughes Tool** (Houston)	1,260,923	1,750,409	178	4,089	395	937,656	147
266	269	**Louisiana-Pacific** (Portland, Ore.)	1,260,920	1,397,200	211	54,940	222	775,290	179
267	●	**Minstar** (Minneapolis)[46]	1,253,116	1,316,453	222	30,784**	293	233,652	367
268	264	**Temple-Inland** (Diboll, Tex.)	1,243,125	1,469,341	207	85,090	162	863,705	170
269	279	**Data General** (Westboro, Mass.)[10]	1,238,959	1,262,177	231	24,305	319	657,856	204
270	267	**Stone Container** (Chicago)	1,229,148	1,010,321	258	3,778	397	294,733	329
271	260	**Richardson-Vicks** (Wilton, Conn.)[5]	1,223,600	922,500	277	72,200	190	484,200	252
272	373	**Hasbro** (Pawtucket, R.I.)[47]	1,220,352	845,633	290	98,969	149	417,933	282
273	249	**Louisiana Land & Exploration** (New Orleans)	1,211,900	1,405,300	210	10,400	375	566,500	226
274	293	**International Multifoods** (Minneapolis)[9]	1,211,151	504,588	383	21,701	329	224,366	371
275	280	**Stanley Works** (New Britain, Conn.)	1,208,317	778,248	303	78,286	177	502,589	244
276	251	**West Point-Pepperell** (West Point, Ga.)[22]	1,204,158	782,887	302	28,361	305	461,436	264
277	272	**Norton** (Worcester, Mass.)	1,193,002	1,001,644	260	(129,825)	454	499,098	247
278	290	**National Service Industries** (Atlanta)[22]	1,191,205	617,726	352	67,661	198	417,958	281
279	281	**Miles Laboratories** (Elkhart, Ind.)[48]	1,177,473	960,979	269	20,167	332	504,713	243
280	277	**G. Heileman Brewing** (La Crosse, Wis.)	1,169,228*	652,240	338	43,303	247	298,150	327
281	254	**Asarco** (New York)	1,166,921	1,745,432	179	(62,184)	442	641,479	207
282	289	**Weirton Steel** (Weirton, W.Va.)	1,156,301	512,347	379	61,035	205	1,013,125	134
283	291	**EG&G** (Wellesley, Mass.)	1,155,104	429,811	416	55,708	220	203,401	384
284	299	**Masco** (Taylor, Mich.)	1,153,960	1,817,300	171	164,480	93	978,970	140
285	276	**Willamette Industries** (Portland, Ore.)	1,152,067	918,346	279	60,244	208	473,050	256
286	286	**Becton Dickinson** (Paramus, N.J.)[10]	1,143,789	1,240,908	234	88,002	157	681,052	200
287	283	**Ex-Cell-O** (Troy, Mich.)[26]	1,140,084	799,428	299	57,592	216	494,610	249
288	364	**Tyson Foods** (Springdale, Ark.)[10]	1,135,712	471,470	401	34,831	276	154,721	421
289	329	**Inspiration Resources** (New York)	1,121,787	730,505	313	(291,447)	468	270,282	338
290	273	**CertainTeed** (Valley Forge, Pa.)	1,109,678	762,768	307	53,380	227	458,857	266
291	292	**Hartmarx** (Chicago)[26]	1,109,537	669,259	329	42,660	251	332,412	310
292	295	**Ball** (Muncie, Ind.)	1,106,230	641,729	341	51,201	230	330,782	311
293	322	**Rexnord** (Brookfield, Wis.)[18]	1,103,511	984,237	263	36,155	270	468,087	257
294	352	**Crane** (New York)	1,098,848	659,686	334	17,597	342	157,498	419
295	282	**Timken** (Canton, Ohio)	1,090,674	1,375,419	216	(3,903)‡	411	789,281	174
296	304	**Washington Post** (Washington)	1,078,650	885,079	284	114,261	129	349,548	306
297	294	**Magic Chef** (Cleveland, Tenn.)[5]	1,061,752	552,061	368	53,564	225	287,416	333
298	307	**Clorox** (Oakland, Calif.)[5]	1,054,847	778,062	304	86,124	161	485,856	251
299	297	**Pennwalt** (Philadelphia)	1,053,905	958,572	270	(19,721)	423	465,920	259
300	334	**Mattel** (Hawthorne, Calif.)[40]	1,050,928	724,620	317	78,725**	175	198,131	387

● Indicates that a corporation was not among the 500 in 1984.

N.A. Not available.

* Does not include excise taxes; see the explanation of "sales" on page 232.

** Reflects an extraordinary credit of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

† Average for the year; see the reference to "employees" on page 232.

‡ Reflects an extraordinary charge of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[44] FORTUNE estimate.

[45] As of September 30, 1985.

[46] Figures include AMF (1984 rank: 288), acquired October 3, 1985.

[47] Name changed from Hasbro-Bradley June 6, 1985.

[48] Wholly owned by Bayer AG (1984 International 500 rank: 18).

EMPLOYEES		NET INCOME AS PERCENT OF SALES		NET INCOME AS PERCENT OF STOCKHOLDERS' EQUITY		EARNINGS PER SHARE			EARNINGS PER SHARE 1975-85 GROWTH RATE		TOTAL RETURN TO INVESTORS 1985		TOTAL RETURN TO INVESTORS 1975-85 AVERAGE		INDUSTRY CODE
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK	
21,300	165	0.1	405	0.1	402	0.01	1.70	0.21	(26.21)	348	4.46	367	16.33	200	36
861	493	1.3	369	11.7	230	0.93‡	(0.21)	0.27	12.99	117	85.42	20	18.75	161	29
13,906	226	11.5	22	14.1	174	2.47	2.11	0.69	13.64	105	67.41	49	23.29	91	26
2,993	473	—		—		N.A.	N.A.	N.A.	—		—		—		20
7,584	345	2.2	330	18.7	79	N.A.	N.A.	N.A.	—		—		—		20
15,515	215	6.3	114	13.3	192	1.84	1.49	0.54	13.04	116	19.33	274	13.16	256	38
12,932	241	2.9	293	4.0	367	1.19	0.83	1.91	(4.62)	308	59.51	74	6.25	368	38
16,100	212	5.8	135	12.6	210	4.02	3.63	1.64	9.35	182	25.93	214	15.96	205	41
9,400	300	4.2	223	5.7	350	1.52	1.28	N.A.	—		36.61	155	0.02	417	49
10,000	289	4.2	219	20.7	53	2.29	2.71	0.22	26.11	18	(6.93)	412	15.86	209	37
N.A.		—		—		N.A.	(1.59)	0.12	—		(37.50)	452	(0.54)	418	33
5,229†	420	6.3	112	17.5	99	N.A.	N.A.	N.A.	—		—		—		20
11,000	273	2.8	295	14.6	167	4.36	5.03	1.46	11.52	144	69.63	44	22.10	113	20
12,000	257	4.8	184	12.9	201	2.03	1.60	1.22	5.19	237	45.85	116	19.04	155	34
12,900	242	0.3	399	0.4	400	0.07	(2.40)	1.14	(24.33)	346	(1.07)	393	0.45	414	45
12,000	258	4.4	211	7.1	326	1.55	1.19	0.49	12.20	131	7.17	357	11.63	289	26
13,000	239	2.5	317	13.2	195	1.98**	2.40	(0.87)	—		18.42	283	21.78	119	47
9,800	294	6.8	94	9.9	276	3.50	4.24	N.A.	—		17.95	289	—		26
16,535	209	2.0	339	3.7	371	0.92	3.21	0.75	2.00	273	(22.77)	441	9.28	327	44
9,375	301	0.3	400	1.1§	393	0.24	2.39	1.24	(15.13)	337	21.99	249	22.73	103	26
10,900	274	5.9	127	14.9	160	3.01	2.92	1.89	4.76	241	—		—		42
7,000	360	8.1	63	23.7	38	3.55	2.58	0.09	44.33	5	60.21	70	58.71	1	47
827	494	0.9	382	1.8	385	0.38	3.16	2.42	(16.90)	339	(0.55)	390	8.43	340	10
7,909	335	1.8	350	9.6§	280	2.65	4.03	1.94	3.17	258	58.88	76	15.45	215	20
14,793†	222	6.5	107	15.6	147	2.85	2.60	0.81	13.41	111	24.84	226	18.25	169	34
21,000	168	2.4	323	6.2	341	2.75	5.40	2.07	2.86	262	22.72	242	13.98	239	22
18,100	193	—		—		(6.50)	3.04	1.92	—		9.96	337	14.88	226	32
18,700	188	5.7	140	16.2	127	2.75	2.50	0.63	15.79	79	45.38	119	28.29	41	36
11,346	266	1.7	355	4.0	368	N.A.	N.A.	N.A.	—		—		—		42
7,200	356	3.7	253	14.5	169	1.65	1.73	0.22	22.12	31	16.43	297	33.37	29	49
8,200†	324	—		—		(2.87)	(12.56)	0.95	—		(3.29)	402	6.08	370	33
8,131†	326	5.3	154	6.0	346	N.A.	N.A.	N.A.	—		—		—		33
23,000	154	4.8	181	27.4	24	2.07	1.88	0.28	22.04	32	21.70	251	28.11	43	38
14,000	225	14.3	13	16.8	108	2.56	2.00	0.66	14.52	100	44.82	123	15.16	221	34
8,110	328	5.2	158	12.7	206	3.95	4.00	2.34	5.39	235	50.76	96	12.81	262	26
16,900	203	7.7	70	12.9	202	4.20	3.03	1.94	8.03	202	59.63	72	6.98	358	38
15,428	216	5.1	167	11.6	235	4.05	4.01	1.67	9.24	185	31.57	185	22.10	114	41
16,900	204	3.1	284	22.5	44	1.76	0.93	0.20	24.48	24	91.01	17	45.73	5	20
6,209	379	—		—		(4.62)	(3.11)	N.A.	—		8.11	351	—		10
7,376	350	4.8	183	11.6	236	2.73	2.17	1.36	7.22	212	23.93	234	8.67	337	32
25,000	146	3.8	242	12.8	203	3.38	3.36	0.65	17.98	64	42.09	134	21.45	124	23
9,000	306	4.6	195	15.5	149	2.24	2.04	0.76	11.45	148	38.32	147	24.88	74	34
13,324	234	3.3	276	7.7	310	1.57	1.37	2.02	(2.49)	305	22.01	248	7.66	353	45
11,600	263	1.6	360	11.2	246	1.92	2.56	4.21	(7.56)	320	25.88	215	10.17	312	34
17,561	197	—		—		(0.32)‡	3.91	5.49	—		(11.20)	424	6.10	369	45
6,300	377	10.6	30	32.7	12	8.66	6.11	0.64	29.81	13	48.29	106	37.01	18	27
9,651	296	5.0	169	18.6	83	5.55	5.63	(0.24)	—		52.12	88	27.60	48	36
5,600	402	8.2	60	17.7	92	3.27	3.09	0.95	13.16	114	69.53	45	19.81	143	43
9,901	291	—		—		(2.80)	3.31	3.44	—		13.72	313	9.78	321	28
20,000†	175	7.5	78	39.7	4	1.42**	2.08	(1.18)	—		19.51	273	—		47

RANK		COMPANY	SALES	ASSETS		NET INCOME		STOCKHOLDERS' EQUITY	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	$ THOUSANDS	RANK
301	●	**DWG** (Miami Beach)[23]	**1,046,151**	**917,912**	280	**5,641**	392	**109,974**	453
302	316	**Collins & Aikman** (New York)[9]	**1,040,373**	**529,768**	375	**62,692**	203	**289,932**	331
303	308	**Dow Jones** (New York)	**1,039,314**	**1,176,697**	239	**138,608**	113	**600,200**	218
304	320	**Dean Foods** (Franklin Park, Ill.)	**1,034,149**	**321,721**	449	**31,814**	287	**154,655**	423
305	309	**Brockway** (Jacksonville, Fla.)	**1,032,773**	**492,766**	390	**17,926**	340	**223,919**	372
306	313	**Capital Cities Communications** (New York)	**1,020,880**	**1,884,931**	168	**142,222**	109	**889,260**	167
307	312	**Springs Industries** (Fort Mill, S.C.)[49]	**1,013,492**	**1,013,060**	256	**13,271**	366	**442,223**	270
308	327	**General Instrument** (New York)[9]	**993,848**	**828,846**	293	**(9,600)**	416	**615,912**	214
309	305	**Vulcan Materials** (Birmingham, Ala.)	**981,187**	**819,250**	295	**71,312**	195	**526,519**	236
310	319	**Quaker State Oil Refining** (Oil City, Pa.)	**974,251**	**649,129**	339	**45,892**	240	**311,864**	317
311	317	**Varian Associates** (Palo Alto, Calif.)[10]	**972,545**	**744,806**	311	**26,122**	312	**429,229**	274
312	324	**General Cinema** (Chestnut Hill, Mass.)[10]	**966,812**	**945,213**	271	**88,231**	156	**386,253**	290
313	268	**Clark Equipment** (South Bend, Ind.)	**964,093**	**888,400**	283	**(85,472)**	445	**428,798**	275
314	311	**Cluett Peabody** (New York)	**961,687**[44]	**605,939**[45]	355	**N.A.**		**N.A.**	
315	253	**Allis-Chalmers** (West Allis, Wis.)	**961,064**	**675,179**	326	**(168,383)**	458	**(22,625)**	487
316	302	**Potlatch** (San Francisco)	**950,323**	**1,123,588**	243	**37,669**	264	**473,220**	255
317	345	**E-Systems** (Dallas)	**948,844**	**478,802**	399	**44,982**	243	**320,989**	313
318	318	**Lafarge** (Dallas)	**944,524**	**990,710**	262	**14,138**	363	**377,119**	296
319	325	**Avery International** (Pasadena, Calif.)[26]	**932,669**	**614,714**	354	**48,261**	236	**314,455**	316
320	323	**A.O. Smith** (Milwaukee)	**931,730**	**486,319**	394	**41,175**	255	**237,276**	363
321	424	**Advanced Micro Devices** (Sunnyvale, Calif.)[14]	**931,079**	**760,108**	308	**135,369**	117	**445,654**	269
322	350	**Gerber Products** (Fremont, Mich.)[14]	**929,443**	**557,361**	365	**56,387**	219	**349,884**	305
323	336	**Brown-Forman** (Louisville)[23,50]	**928,392***	**935,383**	275	**81,684**	168	**465,832**	260
324	339	**Fuqua Industries** (Atlanta)	**923,298**	**553,244**	366	**33,220**	283	**205,198**	382
325	356	**Idle Wild Foods** (Worcester, Mass.)[22]	**921,951**	**138,310**	496	**8,252**	382	**71,884**	472
326	328	**CF Industries** (Long Grove, Ill.)	**920,851**	**935,687**	274	**N.A.**[21]		**508,813**	241
327	346	**American Greetings** (Cleveland)[9]	**919,371**	**747,897**	309	**74,365**	186	**425,748**	277
328	348	**Sheller-Globe** (Toledo)[10]	**917,702**	**494,418**	389	**36,723**	269	**239,635**	361
329	332	**Fairchild Industries** (Chantilly, Va.)	**917,293**	**702,198**	320	**(167,095)**	457	**45,396**	481
330	303	**Chromalloy American** (St. Louis)	**917,123**	**656,995**	336	**2,172**	404	**267,554**	340
331	315	**Mitchell Energy & Development** (The Woodlands, Tex.)[40]	**914,639**	**2,060,466**	158	**35,684**	272	**541,683**	232
332	300	**Tyler** (Dallas)	**912,415**	**474,114**	400	**15,363**	355	**200,135**	385
333	331	**Dayco** (Dayton, Ohio)[10]	**905,189**	**482,856**	398	**15,100**	358	**178,472**	405
334	●	**Bowater** (Darien, Conn.)	**904,004**	**1,315,036**	223	**67,520**	199	**422,957**	279
335	343	**Lubrizol** (Wickliffe, Ohio)	**903,403**	**854,445**	289	**60,224**	209	**519,298**	238
336	338	**Dow Corning** (Midland, Mich.)	**901,100**	**1,018,900**	254	**95,200**	150	**575,700**	224
337	333	**Household Manufacturing** (Prospect Heights, Ill.)[51]	**899,827**	**680,307**	325	**50,103**	233	**393,839**	288
338	326	**Federal-Mogul** (Southfield, Mich.)	**895,483**	**681,908**	324	**51,973**	229	**339,272**	308
339	371	**National Cooperative Refinery Assoc.** (McPherson, Kans.)[5]	**894,568**	**394,790**	427	**N.A.**[21]		**166,617**	415
340	306	**Phelps Dodge** (New York)	**886,635**	**1,647,859**	187	**29,500****	297	**891,055**	166
341	366	**Sanders Associates** (Nashua, N.H.)[30]	**885,790**	**617,616**	353	**37,116**	265	**350,835**	304
342	335	**Sun Chemical** (New York)	**383,864**	**670,506**	327	**4,069**	396	**192,123**	395
343	341	**National Starch & Chemical** (Bridgewater, N.J.)[34]	**880,570**	**654,497**	337	**66,013**	201	**375,201**	297
344	321	**Outboard Marine** (Waukegan, Ill.)[10]	**880,205**	**720,686**	318	**29,378**	298	**385,175**	291
345	353	**McCormick** (Hunt Valley, Md.)[26]	**873,038**	**582,441**	358	**27,830**	308	**261,126**	345
346	301	**Lone Star Industries** (Greenwich, Conn.)	**871,763**	**1,312,673**	224	**58,316**	213	**558,147**	228
347	368	**Sonoco Products** (Hartsville, S.C.)	**869,598**	**500,833**	386	**49,409**	234	**295,743**	328
348	357	**Amdahl** (Sunnyvale, Calif.)	**862,032**	**906,868**	282	**28,706****	303	**457,760**	268
349	314	**Interlake** (Oak Brook, Ill.)	**850,173**	**729,397**	314	**28,181**	307	**351,753**	303
350	363	**M/A-Com** (Burlington. Mass.)[10]	**848,460**	**871,360**	286	**39,375**	258	**465,045**	262

● Indicates that a corporation was not among the 500 in 1984.

N.A. Not available.

* Does not include excise taxes; see the explanation of "sales" on page 232.

** Reflects an extraordinary credit of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

† Average for the year; see the reference to "employees" on page 232

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[49] Figures include M. Lowenstein (1984 rank: 402), acquired November 2, 1985.

[50] Name changed from Brown-Forman Distillers July 26, 1984.

[51] Wholly owned by Household International (1984 Service 500 rank: R10).

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE		
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK	
16,800	207	**0.5**	390	**5.1**	354	**0.34**	**0.18**	**0.37**	**(0.78)**	291	**(8.13)**	414	**11.96**	285	22
11,300	267	**6.0**	123	**21.6**	49	**2.91**	**2.23**	**0.11**	**38.76**	8	**65.60**	57	**23.25**	92	22
6,924	363	**13.3**	18	**23.1**	39	**2.15**	**2.01**	**0.42**	**17.81**	67	**13.59**	317	**24.51**	79	27
5,002	427	**3.1**	282	**20.6**	55	**2.31**	**1.93**	**0.34**	**21.27**	35	**56.63**	81	**42.22**	8	20
12,000	256	**1.7**	354	**8.0**	302	**2.19**	**0.77**	**2.48**	**(1.24)**	293	**66.51**	53	**8.85**	332	32
8,000	332	**13.9**	14	**16.0**	135	**10.87**	**10.40**	**1.64**	**20.82**	40	**36.44**	157	**26.80**	55	27
17,000†	202	**1.3**	371	**3.0**	376	**1.49**	**4.06**	**0.75**	**7.11**	215	**34.00**	174	**20.35**	138	22
13,600	229	—		—		**(0.30)**	**1.16**	**0.47**	—		**9.23**	343	**21.86**	118	36
6,167†	382	**7.3**	84	**13.5**	187	**6.15**	**6.75**	**2.43**	**9.71**	174	**33.03**	180	**22.09**	115	10
5,989	390	**4.7**	189	**14.7**	164	**1.91**	**0.82**	**1.29**	**4.02**	247	**36.79**	154	**10.35**	311	29
13,600	230	**2.7**	304	**6.1**	343	**1.19**	**2.72**	**0.55**	**7.93**	203	**(23.10)**	442	**18.50**	165	36
13,000	237	**9.1**	44	**22.8**	40	**2.33**	**2.94**	**0.33**	**21.40**	34	**44.79**	124	**25.33**	68	49
10,063	287	—		—		**(5.16)**	**1.59****	**3.43**	—		**4.17**	369	**4.39**	386	45
16,161	211	—		—		**N.A.**	**2.98**	**1.20**	—		**46.49**	113	**22.66**	104	23
13,144†	236	—		—		**(12.27)**	**(19.26)**	**2.33**	—		**(29.79)**	448	**(7.70)**	435	45
7,839	336	**4.0**	236	**6.9§**	327	**2.19**	**2.80**	**2.51**	**(1.37)**	296	**33.15**	179	**6.43**	365	26
13,405	233	**4.7**	188	**14.0**	175	**1.47**	**2.02**	**0.35**	**15.38**	83	**23.65**	238	**31.29**	36	36
6,000	387	**1.5**	364	**3.8**	370	**0.31**	**(0.20)**	**N.A.**	—		**2.53**	379	—		32
9,350	302	**5.2**	162	**15.4**	153	**2.44**	**2.42**	**0.25**	**25.34**	21	**14.51**	310	**12.72**	266	28
9,885†	293	**4.4**	203	**17.4**	100	**5.35**	**(5.82)**	**(1.20)**	—		**73.33**	35	**16.95**	194	40
15,299	217	**14.5**	11	**30.4**	15	**0.39**	**1.23**	**(0.05)**	—		**(1.69)**	395	**40.84**	9	36
14,470†	223	**6.1**	121	**16.1**	132	**2.77**	**2.48**	**0.89**	**12.04**	137	**73.23**	36	**18.81**	160	20
6,550	371	**8.8**	51	**17.5**	95	**3.43**	**2.90**	**0.75**	**16.38**	72	**51.71**	90	**25.87**	60	49
11,300	268	**3.6**	258	**16.2**	126	**3.22**	**3.76**	**(1.05)**	—		**18.42**	282	**36.21**	21	45
2,480	478	**0.9**	381	**11.5**	241	**4.42**	**2.46**	**1.10**	**14.92**	90	**10.80**	332	—		20
1,720	488	—		—		**N.A.**	**N.A.**	**N.A.**	—		—		—		28
19,000	182	**8.1**	64	**17.5**	98	**2.35**	**1.91**	**0.39**	**19.52**	49	**6.03**	359	**25.05**	72	27
12,298	253	**4.0**	234	**15.3**	154	**4.15**	**3.73**	**2.16**	**6.77**	221	**11.75**	328	**15.04**	222	40
12,380	248	—		—		**(13.17)**	**(0.82)**	**0.28**	—		**(35.14)**	451	**18.43**	166	41
12,350	250	**0.2**	402	**0.8**	399	**(0.12)**	**(0.57)**	**1.87**	—		**53.66**	86	**8.74**	335	34
3,500	465	**3.9**	239	**6.6**	332	**0.74**	**1.52**	**0.26**	**11.15**	155	**(15.04)**	431	**23.10**	95	10
7,450	347	**1.7**	356	**7.7**	313	**0.82**	**1.95**	**0.69**	**1.74**	276	**0.79**	385	**20.56**	134	28
10,000	288	**1.7**	358	**8.5**	293	**2.04**	**2.35**	**1.88**	**0.81**	282	**21.58**	254	**11.76**	286	30
4,400	444	**7.5**	79	**16.0**	137	**2.30**	**2.60**	**N.A.**	—		**24.08**	232	—		26
5,205	422	**6.7**	98	**11.6**	237	**1.49**	**1.73**	**1.15**	**2.58**	265	**33.66**	176	**6.26**	367	28
6,185†	381	**10.6**	31	**16.5**	116	**N.A.**	**N.A.**	**N.A.**	—		—		—		28
10,800	276	**5.6**	145	**12.7**	207	**N.A.**	**N.A.**	**N.A.**	—		—		—		34
12,451	246	**5.8**	134	**15.3**	155	**3.89**	**3.61**	**0.27**	**30.57**	12	**25.67**	217	**23.91**	86	45
565	497	—		—		**N.A.**	**N.A.**	**N.A.**	—		—		—		29
6,427	374	**3.3**	274	**1.8§**	386	**0.61****	**(11.27)**	**2.26**	**(12.28)**	333	**65.77**	55	**(1.98)**	422	33
11,413	265	**4.2**	220	**10.6**	257	**1.92**	**2.25**	**1.63****	**1.62**	277	**(3.45)**	403	**28.11**	42	36
8,000	334	**0.5**	394	**2.1**	383	**0.52**	**3.23**	**(0.86)**	—		**28.54**	203	**26.89**	53	28
5,699	397	**7.5**	77	**17.6**	94	**N.A.**	**N.A.**	**N.A.**	—		—		—		28
8,829	308	**3.3**	271	**7.6**	317	**1.74**	**3.02**	**1.21**	**3.70**	253	**(0.89)**	392	**11.15**	299	45
7,459	346	**3.2**	280	**10.7**	255	**2.27**	**4.40**	**1.07**	**7.81**	205	**8.26**	350	**9.08**	330	20
6,667	366	**6.7**	96	**8.1§**	299	**3.02**	**2.63**	**1.74**	**5.67**	230	**22.80**	240	**13.61**	243	32
11,735	261	**5.7**	139	**16.7**	112	**2.26**	**1.95**	**0.63**	**13.59**	106	**57.77**	79	**23.18**	93	26
7,000	359	**3.3**	273	**6.3**	340	**0.60****	**0.80**	**N.A.**	—		**10.88**	331	—		44
9,324	303	**3.3**	275	**8.0**	300	**5.07**	**6.68**	**6.35**	**(2.23)**	304	**20.50**	262	**13.35**	251	33
11,790	260	**4.6**	194	**8.5**	292	**0.92**	**0.90**	**0.17**	**18.55**	57	**(21.98)**	439	**26.27**	59	36

RANK		COMPANY	SALES	ASSETS		NET INCOME		STOCKHOLDERS' EQUITY	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	$ THOUSANDS	RANK
351	360	**Big Three Industries** (Houston)	**834,170**	**1,066,832**	246	**14,537**	361	**511,546**	240
352	347	**Champion Spark Plug** (Toledo)	**829,400**	**640,800**	342	**15,200**	357	**368,700**	298
353	330	**Tecumseh Products** (Tecumseh, Mich.)	**829,033**	**634,569**	345	**60,054**	210	**481,493**	254
354	351	**Reichhold Chemicals** (White Plains, N.Y.)	**822,534**	**496,079**	387	**(28,432)**	427	**178,890**	404
355	355	**Arvin Industries** (Columbus, Ind.)	**820,995**	**378,819**	439	**35,872**	271	**249,938**	357
356	376	**Harcourt Brace Jovanovich** (Orlando, Fla.)	**818,909**	**802,755**	298	**50,547**	231	**305,907**	321
357	354	**Insilco** (Meriden, Conn.)	**811,780**	**659,240**	335	**26,119**	313	**314,815**	315
358	369	**MEI** (Minneapolis)	**808,273**	**501,586**	385	**37,678**	263	**234,811**	366
359	367	**Figgie International Holdings** (Richmond, Va.)	**803,412**	**561,508**	361	**29,238**	300	**218,472**	375
360	388	**Joy Manufacturing** (Pittsburgh)[10]	**800,183**	**791,267**	300	**14,666**	360	**423,764**	278
361	433	**United Merchants & Manufacturers** (New York)[5]	**795,360**	**729,301**	315	**(20,366)**	424	**148,157**	428
362	358	**Bemis** (Minneapolis)	**787,028**	**440,874**	411	**23,005**	324	**103,785**	400
363	403	**Federal Paper Board** (Montvale, N.J.)	**783,927**	**917,814**	281	**11,196**	372	**273,974**	337
364	361	**Coleco Industries** (West Hartford, Conn.)	**776,002**	**397,541**	425	**82,915****	164	**102,352**	459
365	381	**Echlin** (Branford, Conn.)[22]	**771,390**	**574,046**	360	**45,603**	241	**289,721**	332
366	400	**Prime Computer** (Natick, Mass.)	**769,673**	**597,313**	356	**57,782**	215	**383,302**	295
367	390	**Armstrong Rubber** (New Haven, Conn.)[10]	**767,844**	**578,184**	359	**16,026**	351	**239,063**	362
368	386	**Deluxe Check Printers** (St. Paul)	**764,421**	**520,740**	378	**104,215**	142	**354,083**	301
369	337	**Midland-Ross** (Cleveland)	**762,936**	**691,685**	321	**19,461**	334	**237,744**	351
370	372	**Mohasco** (Amsterdam, N.Y.)	**760,136**	**399,257**	424	**17,057**	345	**212,517**	379
371	374	**Bell & Howell** (Skokie, Ill.)	**759,832**	**668,932**	330	**32,186**	286	**236,921**	364
372	396	**Nucor** (Charlotte, N.C.)	**758,495**	**560,311**	363	**58,478**	212	**357,502**	300
373	395	**Cincinnati Milacron** (Cincinnati)	**732,152**	**669,570**	328	**(44,767)**	433	**268,427**	339
374	370	**GAF** (Wayne, N.J.)	**731,962**	**879,174**	285	**77,581****	178	**298,153**	326
375	362	**Newmont Mining** (New York)	**729,130**	**2,084,845**	156	**(34,850)**	430	**1,404,131**	96
376	379	**Economics Laboratory** (St. Paul)[5]	**726,939**	**434,495**	415	**39,504**	257	**234,966**	365
377	342	**Freeport-McMoRan** (New Orleans)	**722,160**	**2,058,988**	159	**111,456**	133	**718,224**	188
378	375	**Anchor Hocking** (Lancaster, Ohio)	**720,347**	**506,321**	381	**2,388**	403	**254,754**	356
379	389	**Briggs & Stratton** (Wauwatosa, Wis.)[5]	**717,773**	**411,598**	418	**33,517**	282	**283,399**	334
380	382	**Consolidated Papers** (Wisconsin Rapids, Wis.)	**715,744**	**639,770**	344	**106,881**	139	**492,898**	250
381	378	**Scott & Fetzer** (Lakewood, Ohio)[26]	**709,363**[44]	**466,412**[52]	406	**N.A.**		**N.A.**	
382	404	**A.H. Robins** (Richmond, Va.)	**706,134**	**706,494**	319	**75,814****	181	**(47,149)**	488
383	383	**Interstate Bakeries** (Kansas City, Mo.)[19]	**703,578**	**177,009**	492	**7,534****	384	**70,085**	473
384	408	**Amsted Industries** (Chicago)[10]	**700,664**	**549,857**	369	**29,300**	299	**383,877**	293
385	427	**Worthington Industries** (Columbus, Ohio)[19]	**700,660**	**393,441**	429	**38,654**	260	**203,429**	383
386	359	**Southwest Forest Industries** (Phoenix)	**700,092**	**668,629**	331	**(9,823)****	417	**174,642**	409
387	365	**Smith International** (Newport Beach, Calif.)	**697,301**	**816,539**	296	**(265,076)**	466	**183,376**	401
388	413	**Esselte Business Systems** (Garden City, N.Y.)	**695,500**	**627,300**	348	**34,400**	278	**292,500**	330
389	●	**First City Industries** (Beverly Hills, Calif.)[53]	**686,031**¶	**967,844**	265	**(10,274)**	419	**91,763**	465
390	401	**Maytag** (Newton, Iowa)	**683,721**	**364,842**	442	**71,840**	193	**256,614**	354
391	392	**Nalco Chemical** (Oak Brook, Ill.)	**682,333**	**541,551**	372	**73,332**	187	**384,238**	292
392	296	**Wheeling-Pittsburgh Steel** (Pittsburgh)	**681,057**	**1,061,092**	250	**(303,072)**	470	**33,977**	482
393	446	**Macmillan** (New York)	**676,949**	**587,454**	357	**45,400**	242	**245,955**	357
394	405	**Raychem** (Menlo Park, Calif.)[5]	**675,364**	**667,108**	332	**28,253**	306	**353,591**	302
395	398	**Tyco Laboratories** (Exeter, N.H.)[19]	**673,932**	**345,674**	444	**35,105**	274	**192,540**	393
396	349	**Storage Technology** (Louisville, Colo.)	**673,419**	**918,708**	278	**(57,437)**	438	**(54,421)**	489
397	432	**Rubbermaid** (Wooster, Ohio)	**671,362**	**482,862**	397	**57,130**	217	**300,732**	323
398	441	**Smithfield Foods** (Arlington, Va.)[23]	**669,130**	**119,194**	498	**3,458**	399	**20,436**	485
399	384	**Dennison Manufacturing** (Framingham, Mass.)	**661,580**	**463,052**	408	**6,708**	387	**214,943**	378
400	391	**Thorn Apple Valley** (Southfield, Mich.)[19,54]	**658,735**	**123,834**	497	**(428)**	408	**33,588**	483

● Indicates that a corporation was not among the 500 in 1984.

¶ Includes sales from discontinued operations of at least 10%; see the explanation of "sales" on page 232.

N.A. Not available.

** Reflects an extraordinary credit of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

† Average for the year; see the reference to "employees" on page 232.

‡ Reflects an extraordinary charge of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[52] As of August 31, 1985.

[53] Figures include Scovill (1984 rank: 344), acquired August 15, 1985.

[54] Name changed from Frederick & Herrud October 12, 1984.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE		
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK	
5,209	421	1.7	352	2.8	378	0.38	1.40	0.77	(6.85)	318	24.84	225	7.55	354	28
12,450	247	1.8	349	4.1	365	0.40	0.71	1.24	(10.70)	329	20.01	270	2.94	399	36
10,294†	284	7.2	85	12.5	212	10.98	12.92	3.60	11.80	142	34.41	170	20.45	136	45
4,565	439	—		—		(3.85)	3.63	2.32	—		3.54	373	14.77	227	28
11,421	264	4.4	210	14.4	172	2.21	1.94	0.40	18.64	56	50.66	97	21.59	120	40
10,750	277	6.2	119	16.5	117	4.85	3.70	1.80	10.42	165	67.09	51	24.16	82	27
7,386	349	3.2	278	8.3	295	1.37	1.73	0.88	4.49	244	16.73	294	19.32	150	28
5,200	423	4.7	193	16.1	133	2.23	2.60	0.41	18.31	61	2.57	378	38.27	14	49
15,970	214	3.6	254	13.4	191	5.03	3.00	1.61	12.07	134	79.44	26	22.97	97	45
8,527	318	1.8	348	3.5	372	0.83	1.80**	2.34	(9.85)	328	(3.26)	401	4.25	388	45
12,900	243	—		—		(2.28)	1.41**	(3.12)	—		20.63	260	3.45	392	22
7,724	338	2.9	291	12.5	211	1.64	2.56	0.77	7.85	204	70.96	40	25.42	66	26
5,700	396	1.4	365	4.1	366	0.54	2.93	1.23	(7.92)	322	(4.02)	407	14.89	225	26
4,430†	443	10.7	28	81.0	1	5.00**	(4.95)	—	99.53	1	31.96	183	27.25	51	47
10,100	286	5.9	126	15.7	141	1.10	1.06	0.31	13.50	108	15.81	302	11.21	298	40
8,115	327	7.5	75	15.1	159	1.20	1.25	0.03**	47.16	3	20.14	267	53.58	2	44
8,011	331	2.1	335	6.7	331	1.52	2.61	0.52	11.38	150	(14.31)	429	19.31	151	30
12,669	244	13.6	17	29.4	17	2.43	2.00	0.25	25.66	20	65.12	58	24.86	75	27
9,200	304	2.6	314	7.6	319	1.02	(3.03)	1.76	(5.34)	311	4.38	368	10.66	308	36
12,956	240	2.2	327	8.0§	301	2.62	2.60	1.54	5.46	234	36.93	153	9.67	325	25
11,000	272	4.2	217	13.6	185	3.06	3.04	(1.00)	—		18.13	287	13.39	249	38
3,900	458	7.7	69	16.4	122	4.11	3.16	0.62	20.91	38	67.32	50	36.82	19	33
9,197	305	—		—		(1.92)	0.80	0.45	—		(15.04)	430	20.75	132	45
4,300	449	10.6	29	26.0	27	4.50**	3.70**	2.06	8.13	200	141.81	5	22.58	106	28
6,596	369	—		—		(1.15)	1.35	2.05	—		33.48	177	11.13	300	33
7,302	352	5.4	151	16.8	106	2.90	2.69	1.24	8.87	193	56.55	82	8.65	338	43
4,500	440	15.4	7	15.5	148	1.65	1.32	0.55	11.57	143	8.09	352	15.74	211	10
10,800	275	0.3	398	0.9	396	0.23	(1.80)	2.13	(19.97)	343	34.09	173	9.81	320	32
8,203	323	4.7	192	11.8	227	2.32	2.40	1.26	6.25	226	6.67	358	5.48	380	45
4,861†	433	14.9	10	21.7	46	4.91	3.70	0.85	19.15	52	50.13	98	26.89	54	26
18,939†	186	—		—		N.A.	6.01	2.26	—		5.43	361	17.53	183	36
6,100	384	10.7	27	—		3.12**	(18.44)	1.02	11.83	140	(42.77)	457	2.98	398	42
11,200	269	1.1	376	10.8	253	1.53**	3.86	1.19	2.54	266	51.52	93	18.38	167	20
8,800	309	4.2	222	7.6	316	2.68	2.23	3.23	(1.86)	302	18.03	288	13.29	253	33
5,300	417	5.5	146	19.0	75	2.10	1.56	0.37	18.85	55	44.05	129	32.80	30	33
5,463	408	—		—		(1.67)**	(0.23)‡	0.06	—		(19.69)	436	9.14	328	26
7,229	355	—		—		(11.66)	(3.01)	2.03	—		(34.79)	450	(5.75)	430	45
10,640	279	5.0	176	11.8	228	1.69	1.66	N.A.	—		68.94	47	—		26
10,162	285	—		—		(1.97)	1.37	(9.76)	—		(58.22)	458	15.86	210	36
4,930†	429	10.5	32	28.0	21	2.65	2.31	0.97	10.57	163	80.15	25	15.21	219	36
5,065	426	10.8	26	19.1	73	1.87	1.94	0.80	8.86	194	2.81	377	8.90	331	28
5,894†	392	—		—		(60.87)	(14.12)	(0.68)	—		(39.45)	455	(6.38)	433	33
8,000	333	6.7	95	18.5	84	2.07	1.72	0.10	36.06	9	65.02	59	38.25	15	27
9,500	298	4.2	221	8.0	304	2.84	3.84	1.46	6.90	216	68.78	48	12.26	278	36
6,965	362	5.2	160	18.2	86	3.73	3.22	0.78	16.86	71	39.85	141	26.43	57	36
8,540	317	—		—		(1.66)	(14.62)	0.33	—		(22.22)	440	(2.85)	424	44
5,429	409	8.5	53	19.0	76	1.58	1.38	0.33	16.95	70	56.29	83	21.04	128	30
4,300	451	0.5	391	16.9	102	1.22	0.86	0.16	22.52	28	149.18	4	—		20
8,300	320	1.0	377	3.1	375	0.43	2.27	0.82	(6.29)	316	21.59	253	21.57	121	26
2,700	477	—		—		(0.12)	0.65	0.56	—		—		—		20

								EQUITY	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	$ THOUSANDS	RANK
401	394	**Ferro** (Cleveland)	651,071	393,390	430	8,893	380	196,107	390
402	•	**Ag Processing** (Omaha)[22]	643,469	146,598	494	N.A.[21]		67,286	474
403	393	**Eagle-Picher Industries** (Cincinnati)[36]	641,736	468,254	404	(119,899)	452	107,702	456
404	409	**Dexter** (Windsor Locks, Conn.)	633,314	484,567	395	28,582	304	232,796	369
405	387	**Jefferson Smurfit** (Alton, Ill.)	630,425	341,168	445	16,826	346	125,230	443
406	422	**Savannah Foods & Industries** (Savannah, Ga.)	629,354	307,124	455	17,273	344	106,270	457
407	414	**Flowers Industries** (Thomasville, Ga.)[8]	626,274	336,639	447	25,645	316	143,365	431
408	462	**Sealed Power** (Muskegon, Mich.)	624,546	505,270	382	29,900	296	255,542	355
409	445	**Tandem Computers** (Cupertino, Calif.)[10]	624,138	552,344	367	34,374	279	420,408	280
410	421	**Nashua** (Nashua, N.H.)	621,555	264,437	472	16,423	348	146,246	429
411	423	**Wm. Wrigley Jr.** (Chicago)	620,267	351,512	443	43,498	245	258,809	349
412	419	**H.H. Robertson** (Pittsburgh)	614,249	391,001	432	(31,987)	428	127,117	440
413	425	**Ceco Industries** (Oak Brook, Ill.)[55]	613,310	276,520	468	13,133	367	152,805	426
414	417	**AM International** (Chicago)[20]	611,744	329,876	448	25,450**	317	100,284	461
415	412	**Rohr Industries** (Chula Vista, Calif.)[20]	607,139	437,732	413	47,306	238	264,333	343
416	458	**Nortek** (Providence)	603,368	770,219	306	17,600	341	177,793	406
417	•	**Masco Industries** (Taylor, Mich.)	599,080	728,720	316	2,900	402	105,760	458
418	407	**Bausch & Lomb** (Rochester, N.Y.)	596,151	627,295	349	66,765	200	408,108	286
419	420	**Illinois Tool Works** (Chicago)	596,127	521,850	377	31,547	291	403,439	287
420	434	**Warnaco** (Bridgeport, Conn.)	591,285	307,078	456	22,523	325	188,374	398
421	442	**Snap-on Tools** (Kenosha, Wis.)	591,278	459,854	409	59,732	211	337,328	309
422	•	**Telex** (Tulsa)[14]	591,038	463,737	407	53,343	228	194,514	391
423	459	**Phillips-Van Heusen** (New York)[40]	590,787	278,087	467	15,298	356	137,567	433
424	426	**Kellwood** (St. Louis)[23]	588,531	300,402	459	15,510	353	95,988	463
425	429	**Fieldcrest Mills** (Eden, N.C.)	586,092	373,071	440	13,062	368	181,163	403
426	447	**Moore McCormack Resources** (Stamford, Conn.)	583,672	999,316	261	21,231	331	389,942	289
427	418	**Westmoreland Coal** (Philadelphia)	580,820	405,582	421	10,119	378	172,476	410
428	439	**Media General** (Richmond, Va.)	578,560	688,092	323	32,824	285	305,351	322
429	455	**Foxboro** (Foxboro, Mass.)	572,175	495,293	388	(34,154)	429	259,911	348
430	430	**Roper** (Kankakee, Ill.)[20]	566,571	285,462	465	(3,894)	410	83,013	468
431	456	**Tracor** (Austin, Tex.)	562,940	407,201	419	13,371	365	196,301	389
432	450	**Rorer Group** (Fort Washington, Pa.)	560,749¶	444,438	410	36,818	268	265,652	341
433	428	**Oxford Industries** (Atlanta)[19]	558,666	235,012	483	7,133	386	123,109	444
434	443	**Georgia Kraft** (Rome, Ga.)	557,033	659,759	333	31,764	289	383,326	294
435	448	**Carpenter Technology** (Reading, Pa.)[8]	556,735	621,999	350	24,512	318	319,238	314
436	411	**Handy & Harman** (New York)	556,700	470,933	403	6,306	389	131,740	438
437	•	**Liz Claiborne** (New York)	556,553	222,564	485	60,580	206	162,729	416
438	444	**Guardian Industries** (Northville, Mich.)	552,206	745,946	310	N.A.		N.A.	
439	457	**Cameron Iron Works** (Houston)[8]	547,148	831,583	292	3,683	398	342,682	307
440	481	**Winn Enterprises** (Anaheim, Calif.)[14]	545,911	510,304	380	5,023**	393	20,064	486
441	461	**Liquid Air** (San Francisco)	543,041	633,558	346	31,753	290	261,196	344
442	•	**Riceland Foods** (Stuttgart, Ark.)[22]	542,760	234,000	484	N.A.[21]		125,642	442
443	467	**North American Coal** (Cleveland)	541,959	1,066,130	247	33,554	281	162,161	417
444	464	**Pittway** (Northbrook, Ill.)	541,313	419,296	417	31,117	292	260,271	346
445	431	**Easco** (Baltimore)	541,308¶	166,826	493	(53,778)	437	52,882	476
446	•	**SCI Systems** (Huntsville, Ala.)[5]	538,110	262,161	474	13,735	364	98,845	462
447	453	**Bairnco** (New York)	537,241	393,377	431	21,899	328	167,528	414
448	•	**California & Hawaiian Sugar** (San Francisco)	537,134	209,669	488	N.A.[21]		51,071	478
449	440	**Pentair** (St. Paul)	534,198	305,755	457	20,058	333	134,555	436
450	470	**NERCO** (Portland, Ore.)[56]	533,900	785,700	301	43,400	246	300,300	325

● Indicates that a corporation was not among the 500 in 1984.

¶ Includes sales from discontinued operations of at least 10%; see the explanation of "sales" on page 232.

N.A. Not available.

** Reflects an extraordinary credit of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

† Average for the year; see the reference to "employees" on page 232.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[55] Name changed from Ceco August 1, 1984.

[56] Subsidiary of PacifiCorp (1984 Service 500 rank: U41).

		SALES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE		CODE
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK	
8,018	330	1.4	366	4.5	363	1.32	2.53	2.11	(4.57)	307	34.58	169	11.26	294	28
543	498	—		—		N.A.	N.A.	N.A.	—		—		—		20
8,171	325	—		—		(12.52)	2.91	1.90	—		29.26	199	11.32	292	45
5,500	405	4.5	199	12.3	219	1.73	1.93	0.66	10.18	169	36.07	158	21.05	127	28
6,246	378	2.7	305	13.4	190	1.75	2.55	N.A.	—		47.07	108	—		26
1,327	491	2.7	302	16.3	125	2.61	2.58	2.08**	2.29	271	77.94	27	30.32	37	20
10,000	290	4.1	231	17.9§	89	1.10	0.94	0.25	15.78	80	40.23	138	34.89	24	20
7,298	354	4.8	186	11.7	232	2.44	3.38	0.83	11.41	149	8.47	349	20.56	135	40
5,494	407	5.5	148	8.2	298	0.82	1.04	N.A.	—		14.10	312	—		44
5,275	418	2.6	308	11.2	245	3.46	4.22	0.60	19.15	53	10.57	333	14.51	232	44
5,600	404	7.0	89	16.8	107	6.18	5.60	3.49	5.88	227	59.53	73	7.49	355	20
7,632	341	—		—		(5.77)	2.01	3.02	—		(38.20)	454	12.51	270	34
7,750	337	2.1	333	8.6	291	2.61	2.05	1.69	4.42	245	44.16	127	15.36	217	34
9,500	297	4.2	225	25.4	28	0.62**	6.54**	0.61	0.16	288	84.62	21	(2.13)	423	44
7,600	344	7.8	68	17.9	88	5.77	4.92	(1.91)	—		34.88	165	27.46	49	41
6,484	373	2.9	292	9.9	274	2.03	2.44	0.64	12.24	129	(0.36)	389	22.56	107	36
6,000	388	0.5	393	2.7	379	0.15	1.17	N.A.	—		132.45	6	—		34
7,600	342	11.2	23	16.4	121	2.23	1.69	0.69	12.37	126	25.50	220	17.24	186	38
7,300	353	5.3	153	7.8	308	1.25	2.40	0.64	6.84	218	24.92	224	15.33	218	34
11,177	270	3.8	246	12.0	225	2.20	2.02	(0.00)	—		72.73	37	25.19	70	23
6,200	380	10.1	35	17.7	93	2.92	2.93	0.71	15.19	89	22.02	247	12.13	282	34
6,580	370	9.0	45	27.4	23	3.65	2.48	0.13**	39.58	6	66.20	54	40.42	10	44
7,700	340	2.6	310	11.1	248	2.44	2.94	(0.16)	—		26.74	211	27.76	46	23
16,000	213	2.6	309	16.2	130	5.06	4.05	0.12	45.38	4	92.91	16	19.73	144	23
10,437	282	2.2	328	7.2	323	3.35	1.07	2.75	1.99	274	15.33	304	14.63	230	22
4,100	456	3.6	255	4.9§	357	1.84	1.80	3.88	(7.20)	319	18.33	284	8.36	342	32
2,410	479	1.7	353	5.9	348	1.24	(6.01)	8.82	(17.81)	341	19.14	278	(4.43)	429	10
5,500	406	5.7	141	10.8	254	4.61	5.60	1.95	8.98	188	23.74	236	21.48	123	27
8,750	312	—		—		(2.76)	0.35	1.76	—		(12.33)	425	9.74	322	38
5,000	428	—		—		(0.66)	2.80	0.51	—		9.39	340	18.07	172	45
9,700	295	2.4	321	6.8	328	0.69	1.72	0.50**	3.31	256	(5.65)	409	35.14	23	36
3,400	468	6.6	103	13.9	178	1.72	2.08	2.00	(1.50)	301	44.13	128	13.39	250	42
12,362	249	1.3	373	5.8	349	0.64	2.17	0.73	(1.37)	297	45.38	120	23.92	85	23
3,100	472	5.7	138	8.3	296	N.A.	N.A.	N.A.	—		—		—		26
4,806	435	4.4	205	7.7	312	2.77	3.84	2.60	0.64	286	(12.54)	426	15.40	216	33
5,680	398	1.1	374	4.8	359	0.46	1.03	0.90	(6.46)	317	13.69	314	19.06	154	33
2,186	483	10.9	25	37.2	6	1.42	0.99	N.A.	—		90.93	18	—		23
N.A.		—		—		N.A.	1.79	0.27	—		—		—		32
7,104	357	0.7	386	1.1	395	0.12	(5.89)	1.26	(20.93)	344	3.08	375	3.30	394	45
2,130	484	0.9	379	25.0	30	0.79**	0.19	N.A.	—		45.45	117	—		20
4,377	447	5.9	131	11.7§	234	2.42	2.07	2.24	0.78	284	34.24	172	5.99	371	28
1,654	489	—		—		N.A.	N.A.	N.A.	—		—		—		20
4,109	455	6.2	118	20.7	54	10.46	8.28	2.35	16.08	76	45.41	118	16.92	195	10
6,900	364	5.8	137	12.0	226	6.78	6.85	2.78	9.32	183	14.80	308	12.68	268	36
5,086	425	—		—		(7.47)	(1.26)	1.68	—		2.10	381	7.10	357	34
4,290	452	2.6	313	13.9	176	1.00	0.91	0.11**	24.50	23	8.04	353	50.48	3	44
5,398†	411	4.1	232	13.1	198	2.15	2.54	0.36	19.57	48	0.56	386	36.26	20	36
1,400	490	—		—		N.A.	N.A.	N.A.	—		—		—		20
4,800	436	3.8	249	14.9	161	2.56	2.74	0.62	15.26	87	35.21	163	40.39	11	26
1,992	485	8.1	61	14.5	170	1.31	1.74	N.A.	—		13.65	316	—		10

1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	EQUITY $ THOUSANDS	RANK
451	**452**	**Dorsey** (Chattanooga, Tenn.)	**532,241**	**196,387**	491	**10,375**	376	**79,792**	470
452	478	**Ocean Spray Cranberries** (Plymouth, Mass.)[22]	**531,999**	**302,147**	458	**N.A.**[21]		**109,355**	454
453	**486**	**Jostens** (Minneapolis)[5]	**529,769**	**314,511**	450	**37,985**	262	**199,001**	386
454	435	**Sybron** (Rochester, N.Y.)	**529,723**	**405,077**	422	**10,361****	377	**182,245**	402
455	**437**	**Cooper Tire & Rubber** (Findlay, Ohio)	**522,639**	**295,161**	462	**18,471**	337	**175,711**	408
456	472	**Harvey Hubbell** (Orange, Conn.)	**521,136**	**389,868**	433	**47,742**	237	**280,907**	335
457	**491**	**Manhattan Industries** (New York)[40]	**520,688**	**241,456**	480	**1,124**	406	**83,602**	467
458	416	**Datapoint** (San Antonio)[20]	**520,168**	**502,452**	384	**(48,264)**	436	**276,225**	336
459	**480**	**Shaw Industries** (Dalton, Ga.)[5]	**519,472**	**236,115**	482	**25,881**	315	**122,662**	445
460	438	**Michigan Milk Producers Assoc.** (Southfield, Mich.)[10]	**517,113**	**89,846**	500	**N.A.**[21]		**31,973**	484
461	**465**	**Hillenbrand Industries** (Batesville, Ind.)[26]	**507,613**	**539,273**	374	**32,834**	284	**257,609**	352
462	410	**Todd Shipyards** (New York)[14]	**506,808**	**406,470**	420	**18,880**	336	**144,004**	430
463	**•**	**Compaq Computer** (Houston)	**503,880**	**311,998**	453	**26,595**	310	**136,608**	434
464	460	**Ametek** (New York)	**502,789**	**400,731**	423	**34,935**	275	**219,693**	374
465	**498**	**Loral** (New York)[14]	**502,287**	**491,138**	391	**42,052**	252	**260,115**	347
466	468	**International Flavors & Fragrances** (New York)	**501,046**	**559,855**	364	**69,698**	197	**426,986**	276
467	**494**	**Butler Manufacturing** (Kansas City, Mo.)	**497,892**	**253,361**	477	**10,629**	374	**139,231**	432
468	475	**Harris Graphics** (Melbourne, Fla.)[5]	**496,141**	**385,670**	436	**19,042**	335	**84,041**	466
469	**•**	**Herman Miller** (Zeeland, Mich.)[19]	**491,919**	**290,301**	464	**40,922**	256	**170,029**	412
470	493	**Universal Foods** (Milwaukee)[10]	**491,520**	**292,154**	463	**17,390**	343	**128,548**	439
471	**454**	**Sun-Diamond Growers of California** (Stockton, Calif.)[20]	**487,233**	**270,543**	470	**N.A.**[21]		**73,512**	471
472	471	**Stanadyne** (Windsor, Conn.)	**484,213**	**337,263**	446	**30,537**	294	**206,026**	381
473	**•**	**Harnischfeger** (Brookfield, Wis.)[18]	**484,052**	**640,202**	343	**16,217**	350	**228,361**	370
474	449	**Carlisle** (Cincinnati)	**481,881**	**312,598**	452	**24,137**	320	**197,388**	388
475	**489**	**Leggett & Platt** (Carthage, Mo.)	**478,861**	**270,519**	471	**23,994**	321	**153,043**	425
476	485	**United States Tobacco** (Greenwich, Conn.)	**477,863**	**468,125**	405	**93,529**	152	**323,376**	312
477	**482**	**Meredith** (Des Moines)[8]	**474,921**	**488,207**	392	**42,747**	249	**264,703**	342
478	•	**Hon Industries** (Muscatine, Iowa)	**473,292**	**236,653**	481	**26,024**	314	**120,913**	446
479	**•**	**Dataproducts** (Woodland Hills, Calif.)[14]	**471,828**	**370,283**	441	**27,693**	309	**242,929**	360
480	•	**Barnes Group** (Bristol, Conn.)	**470,702**	**253,586**	475	**12,093**	371	**113,978**	450
481	**483**	**Gifford-Hill** (Dallas)	**468,442**	**389,075**	434	**(43,909)**	432	**153,299**	424
482	499	**C.R. Bard** (Murray Hill, N.J.)	**465,480**	**384,738**	437	**41,948**	253	**256,775**	353
483	**474**	**Wisconsin Dairies Cooperative** (Baraboo, Wis.)[14]	**464,363**	**112,885**	499	**N.A.**[21]		**47,292**	480
484	•	**Philips Industries** (Dayton, Ohio)[14]	**462,460**	**221,286**	486	**23,950**	322	**108,122**	455
485	**463**	**American Bakeries** (New York)	**461,568**	**143,197**	495	**7,601****	383	**62,074**	475
486	•	**Ampco-Pittsburgh** (Pittsburgh)	**461,343**	**386,262**	435	**3,434**	400	**192,280**	394
487	**466**	**Longview Fibre** (Longview, Wash.)[18]	**459,058**	**487,578**	393	**22,418**	326	**215,815**	377
488	415	**Revere Copper & Brass** (Stamford, Conn.)	**459,008**	**273,640**	469	**12,826**	369	**82,017**	469
489	**473**	**H.B. Fuller** (St. Paul)[26]	**457,937**	**253,571**	476	**14,909****	359	**113,417**	452
490	•	**Trinity Industries** (Dallas)[14]	**455,194**	**471,440**	402	**(5,965)**	413	**168,943**	413
491	**•**	**Chesapeake** (West Point, Va.)	**454,100**	**617,800**	351	**15,700**	352	**207,000**	380
492	•	**Commerce Clearing House** (Chicago)	**453,950**	**394,485**	428	**44,844**	244	**134,229**	437
493	**479**	**Coleman** (Wichita)	**442,710**	**313,944**	451	**10,019**	379	**158,948**	418
494	436	**Computervision** (Bedford, Mass.)	**441,137**	**438,515**	412	**(80,777)**	444	**186,227**	399
495	**•**	**Standard Register** (Dayton, Ohio)	**441,048**	**250,770**	478	**31,795**	288	**170,197**	411
496	497	**Lancaster Colony** (Columbus, Ohio)[5]	**440,568**	**263,430**	473	**10,692**	373	**114,786**	449
497	**•**	**Scientific-Atlanta** (Atlanta)[5]	**436,892**	**281,407**	466	**16,385**	349	**188,491**	397
498	•	**S.S. Pierce** (Dundee, N.Y.)[20]	**434,813**	**200,582**	490	**5,889**	390	**51,202**	477
499	**•**	**American Maize-Products** (Stamford, Conn.)	**433,168**	**296,124**	461	**(4,668)**	412	**113,733**	451
500	•	**Winnebago Industries** (Forest City, Iowa)[22]	**424,173**	**202,541**	489	**18,089**	339	**136,485**	435
		TOTALS	**1,807,068,998**	**1,519,463,105**		**69,551,990**		**668,940,917**	

● Indicates that a corporation was not among the 500 in 1984.

N.A. Not available.

** Reflects an extraordinary credit of at least 10%; see the explanation of "net income" and "earnings per share" on page 232.

† Average for the year; see the reference to "employees" on page 232.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

		SALES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE		CODE
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK	
6,100	385	2.0	341	12.8§	204	3.21	2.06	0.85	14.21	103	69.24	46	23.94	84	30
1,775†	487	—		—		N.A.	N.A.	N.A.	—		—		—		20
8,570	316	7.2	88	19.1	72	1.76	1.67	0.46	14.25	102	30.62	191	24.69	77	46
7,316	351	2.0	340	5.7	351	0.87**	(1.26)	2.09	(8.39)	325	8.94	345	6.91	360	38
4,876	432	3.5	260	10.5	259	1.84	2.46	0.54	13.10	115	12.00	326	27.96	45	30
5,766	395	9.2	43	16.5§	120	1.91	1.68	0.65	11.47	146	38.46	146	19.90	142	36
6,114	383	0.2	404	1.3	389	0.22	3.01	(2.75)	—		10.34	335	18.96	156	23
5,993	389	—		—		(2.46)	1.37	0.61**	—		(70.05)	460	0.32	415	44
4,300	450	5.0	173	21.1	52	3.04	2.70	0.56	18.35	60	43.23	131	23.04	96	22
742	496	—		—		N.A.	N.A.	N.A.	—		—		—		20
6,800	365	6.5	108	12.8	205	1.69	1.95	0.66	9.90	172	27.96	207	21.50	122	34
5,300†	416	3.7	251	13.1	197	4.36	4.84	(14.61)	—		(8.41)	416	23.49	89	37
1,860	486	5.3	155	19.5	67	0.97	0.47	N.A.	—		100.00	11	—		44
6,627	367	7.0	92	15.9	138	1.59	1.96	0.64	9.57	179	16.08	300	22.29	111	38
6,545	372	8.4	55	16.2	129	1.79	1.45	0.34**	17.98	65	40.16	140	33.97	28	36
3,723	461	13.9	15	16.3	124	1.89	1.89	0.66	11.09	156	47.03	109	8.42	341	43
3,809	459	2.1	334	7.6	315	2.01	0.51	2.33	(1.48)	299	29.49	198	11.69	288	34
4,200	453	3.8	244	22.7	43	1.86	1.95	N.A.	—		25.51	219	—		45
4,054	457	8.3	57	24.1	35	1.63	1.14	0.19	23.79	26	1.44	383	48.24	4	25
3,300	469	3.5	259	13.5	188	2.51	1.71	1.16	8.07	201	27.76	208	17.21	187	20
2,300†	480	—		—		N.A.	N.A.	N.A.	—		—		—		20
5,300	415	6.3	113	14.8	162	3.18	3.50	0.95	12.84	118	39.81	142	20.80	130	34
4,400	446	3.4	269	5.3§	353	0.74	1.28	3.22	(13.69)	335	47.14	107	0.62	412	45
4,723	438	5.0	172	12.2	221	2.61	3.51	0.25	26.31	16	1.75	382	31.45	35	30
7,400	348	5.0	171	15.7	143	1.76	1.52	0.28	20.18	43	77.19	29	31.85	33	25
3,741†	460	19.6	1	28.9	18	3.28	2.86	0.62	18.13	62	(8.38)	415	22.49	108	21
2,975	474	9.0	47	16.2	131	4.53	4.08	0.69	20.65	41	24.34	230	37.95	16	27
5,375	413	5.5	149	21.5	51	2.43	1.53	0.54	16.23	74	83.52	22	24.37	80	25
5,300	414	5.9	129	11.4	243	1.32	1.26	0.43	11.87	139	8.01	354	22.77	102	44
4,845	434	2.6	312	10.6	256	1.67	2.51	1.25	2.91	261	28.45	205	15.97	204	34
3,200	470	—		—		(5.13)	1.27	0.97	—		(21.12)	437	15.48	214	32
6,350	376	9.0	46	16.3	123	2.78	2.33	0.70	14.79	92	97.32	13	18.83	158	38
820	495	—		—		N.A.	N.A.	N.A.	—		—		—		20
5,800	394	5.2	161	22.2	45	1.86	1.43	(0.61)	—		58.46	78	35.88	22	34
6,600	368	1.7	359	12.3	220	2.56**	2.36	2.24	1.33	279	48.94	103	13.57	247	20
5,273	419	0.7	384	1.8	387	0.36	0.77	1.62	(13.96)	336	(10.55)	422	11.46	291	34
3,150	471	4.9	178	10.4	261	2.02	2.00	15.01	(18.17)	342	28.50	204	10.42	310	26
3,500	466	2.8	296	15.6	146	2.00	(0.79)	(5.59)	—		3.33	374	3.37	393	33
4,400	445	3.3	277	13.2	196	1.61**	1.28	0.41	14.52	99	22.76	241	22.89	99	28
5,400	410	—		—		(0.33)	0.30	0.53	—		(9.93)	418	17.69	180	34
4,463	441	3.5	264	7.6	318	2.36	3.35	1.85	2.46	268	17.07	293	14.57	231	26
6,033	386	9.9	38	33.4	9	4.98	4.47	0.83	19.62	47	51.17	95	25.60	65	27
4,878	431	2.3	326	6.3	338	1.46	2.37	1.15	2.42	269	21.30	257	13.59	245	45
4,770	437	—		—		(2.82)	1.44	(0.22)	—		(66.11)	459	37.69	17	44
4,452	442	7.2	86	16.7	82	2.41	1.86	0.18	29.30	14	60.84	69	34.80	25	27
5,800	393	2.4	318	9.3	282	1.32	1.63	0.40	12.68	121	16.28	298	18.51	164	30
4,200	454	3.8	250	8.7	289	0.71	0.50	0.21	12.69	120	9.59	339	20.37	137	36
3,563	464	1.4	367	11.5	239	6.49	7.01	0.40	32.14	11	66.67	52	44.58	6	20
2,799	476	—		—		(0.89)	1.92	2.79	—		(10.21)	419	3.51	391	20
2,250	481	4.3	212	13.3	193	0.71	1.10	(0.10)	—		(18.14)	433	9.38	326	37
14,034,477															

TOTAL RETURN TO INVESTORS, 1985

THE TEN HIGHEST

	Sales rank	
Triangle Industries	216	315.49%
Tosco	234	287.50
United Brands	124	158.62
Smithfield Foods	398	149.18
GAF	374	141.81
Masco Industries	417	132.43
Valero Energy	144	120.00
GenCorp	134	109.61
Coastal	50	109.19
Union Carbide	39	101.66

THE FIVE LOWEST

Datapoint	458	-70.05%
Computervision	494	-66.11
First City Industries	389	-58.22
A.H. Robins	382	-42.77
Control Data	106	-40.34

THE INDUSTRY MEDIANS

Furniture	57.06%
Food	51.52
Apparel	45.94
Pharmaceuticals	45.13
Soaps, cosmetics	41.46
Beverages	41.22
Publishing, printing	37.00
Textiles	32.15
Metal products	27.04
Toys, sporting goods	25.74
Chemicals	25.45
Rubber products	24.46
Building materials	23.93
Forest products	22.98
Petroleum refining	22.04
Aerospace	21.51
Scientific and photographic equipment	17.93
Electronics	15.80
Computers (includes office equipment)	14.10
Motor vehicles and parts	12.31
Industrial and farm equipment	9.11
Mining, crude-oil production	8.11
Metals	7.98
Tobacco	7.38
Transportation equipment	-7.66
All Industries	*24.13*

TOTAL RETURN TO INVESTORS, 1975-85 AVG.

THE TEN HIGHEST

	Sales rank	
Hasbro	272	58.71%
Prime Computer	366	53.58
SCI Systems	446	50.48
Herman Miller	469	48.24
Tyson Foods	288	45.73
S.S. Pierce	498	44.58
Teledyne	122	42.97
Dean Foods	304	42.22
Advanced Micro Devices	321	40.84
Telex	422	40.42

THE FIVE LOWEST

Manville	198	-9.15
Allis-Chalmers	315	-7.70
International Harvester	104	-6.49
Wheeling-Pittsburgh Steel	392	-6.38
American Motors	98	-6.16

THE INDUSTRY MEDIANS

Furniture	28.11%
Publishing, printing	24.96
Apparel	22.66
Aerospace	22.10
Beverages	21.24
Rubber products	19.31
Food	17.51
Electronics	17.01
Transportation equipment	16.88
Tobacco	16.69
Metal products	15.36
Motor vehicles and parts	15.04
Mining, crude-oil production	14.66
Forest products	14.34
Textiles	13.38
Computers (includes office equipment)	13.14
Chemicals	13.03
Petroleum refining	12.72
Building materials	11.55
Pharmaceuticals	11.47
Scientific and photographic equipment	11.40
Metals	8.28
Industrial and farm equipment	7.66
Soaps, cosmetics	6.86
All Industries	*15.33*

RETURN ON STOCKHOLDERS' EQUITY

THE TEN HIGHEST

	Sales rank	
Coleco Industries	364	81.0%
Hanson Industries North America	162	47.5
Kellogg	138	41.2
Mattel	300	39.7
Chrysler	13	38.8
Liz Claiborne	437	37.2
Martin Marietta	85	35.2
Teledyne	122	34.6
Commerce Clearing House	492	33.4
Colt Industries	203	33.3

THE INDUSTRY MEDIANS

	1985	**1984**
Toys, sporting goods	31.7%	12.0%
Tobacco	22.8	23.8
Publishing, printing	18.7	19.1
Furniture	18.6	N.A.
Beverages	17.5	15.7
Pharmaceuticals	15.6	17.5
Food	15.0	16.2
Motor vehicles and parts	13.7	15.4
Transportation equipment	13.2	14.3
Scientific and photographic equipment	13.1	14.0
Aerospace	13.0	13.9
Metal products	12.7	12.0
Soaps, cosmetics	12.1	17.4
Apparel	12.0	13.9
Mining, crude-oil production	11.0	13.8
Computers (includes office equipment)	11.0	12.6
Electronics	10.1	14.5
Building materials	10.0	9.5
Petroleum refining	9.5	9.5
Rubber products	9.3	12.1
Forest products	8.3	12.4
Chemicals	8.3	12.2
Industrial and farm equipment	5.8	11.1
Textiles	5.6	8.2
Metals	5.0	5.3
All Industries	*11.5*	*13.5*

RETURN ON SALES

THE TEN HIGHEST

	Sales rank	
United States Tobacco	476	19.6%
Joseph E. Seagram & Sons	218	18.7
Teledyne	122	16.8
Texas Oil & Gas	220	16.5
Eli Lilly	119	15.8
SmithKline Beckman	121	15.8
Freeport-McMoRan	377	15.4
American Home Products	79	15.3
Merck	110	15.2
Consolidated Papers	380	14.9

THE INDUSTRY MEDIANS

	1985	1984
Pharmaceuticals	10.4%	9.5%
Tobacco	9.7	9.8
Publishing, printing	8.1	8.4
Toys, sporting goods	7.8	3.4
Beverages	6.4	6.0
Furniture	5.3	N.A.
Scientific and photographic equipment	5.1	5.6
Mining, crude-oil production	4.8	6.3
Metal products	4.6	4.3
Motor vehicles and parts	4.4	5.2
Computers (includes office equipment)	4.3	6.6
Aerospace	4.2	4.3
Electronics	4.2	5.7
Transportation equipment	4.0	3.3
Building materials	4.0	4.0
Soaps, cosmetics	3.8	5.8
Forest products	3.8	4.8
Chemicals	3.4	4.3
Food	3.0	2.9
Apparel	2.7	3.5
Petroleum refining	2.5	4.0
Rubber products	2.4	3.3
Industrial and farm equipment	2.3	3.8
Metals	1.9	2.3
Textiles	1.8	3.8
All Industries	*3.9*	*4.4*

CHANGES IN SALES

THE TEN BIGGEST INCREASES

	Sales rank	
First City Industries	389	788.0%
Triangle Industries	216	482.2
BASF	149	116.8
Minstar	267	109.5
DWG	301	99.5
Telex	422	85.7
Hasbro	272	70.8
ConAgra	65	65.7
CBI Industries	228	63.7
Advanced Micro Devices	321	59.6

THE TEN BIGGEST DECREASES

Wheeling-Pittsburgh Steel	392	35.1%
Ag Processing	402	28.2
Allis-Chalmers	315	27.5
Control Data	106	26.8
Revere Copper & Brass	488	23.6
Kaiser Aluminum & Chemical	143	22.3
Clark Equipment	313	22.1
International Harvester	104	21.9
Computervision	494	20.7
Tosco	234	20.3

THE INDUSTRY MEDIANS

	Increases
Toys, sporting goods	45.1%
Aerospace	17.5
Furniture	14.7
Tobacco	11.0
Publishing, printing	9.6
Beverages	7.7
Computers (includes office equipment)	7.6
Textiles	7.1
Metal products	5.3
Electronics	5.0
Food	4.8
Soaps, cosmetics	4.7
Pharmaceuticals	4.6
Industrial and farm equipment	3.8
Apparel	3.6
Building materials	2.6
Scientific and photographic equipment	1.9
Motor vehicles and parts	1.2
Chemicals	1.0
	Decreases
Transportation equipment	11.0%
Metals	5.1
Petroleum refining	2.2
Mining, crude-oil production	1.7
Rubber products	1.5
Forest products	1.1

CHANGES IN PROFITS

THE TEN BIGGEST INCREASES*

	Sales rank	
Pacific Resources	252	1365.9%
Triangle Industries	216	1037.9
GenCorp	134	943.2
Crown Central Petroleum	240	713.1
FMC	120	417.2
Baxter Travenol Laboratories	160	371.6
Texaco	6	302.9
Butler Manufacturing	467	292.5
Winn Enterprises	440	287.9
Fieldcrest Mills	425	215.3

THE TEN BIGGEST DECREASES*

Grumman	131	99.9%
Intel	251	99.2
Firestone Tire & Rubber	102	97.1
Wang Laboratories	161	92.6
Manhattan Industries	457	90.3
Dow Chemical	28	90.1
American Hoechst	221	89.2
Louisiana Land & Exploration	273	89.1
Stone Container	270	88.8
Masco Industries	417	87.8

THE INDUSTRY MEDIANS

	Increases
Toys, sporting goods	60.8%
Furniture	29.4
Building materials	14.9
Beverages	13.3
Publishing, printing	11.4
Scientific and photographic equipment	11.2
Pharmaceuticals	9.1
Tobacco	6.7
Aerospace	6.3
Food	4.6
Apparel	2.2
Metal products	.4
	Decreases
Metals	26.7%
Transportation equipment	25.6
Textiles	19.9
Mining, crude-oil production	19.8
Rubber products	17.6
Soaps, cosmetics	14.0
Motor vehicles and parts	13.6
Industrial and farm equipment	13.2
Chemicals	11.3
Petroleum refining	11.2
Computers (includes office equipment)	6.2
Forest products	5.6
Electronics	4.1

*Listings exclude money losers.

SALES PER DOLLAR OF STOCKHOLDERS' EQUITY

THE TEN HIGHEST

	Sales rank	
Central Soya	222	$36.10
Smithfield Foods	398	32.74
Wilson Foods	232	30.60
Winn Enterprises	440	27.21
American Motors	98	27.07
Swift Independent	139	24.55
Fairchild Industries	329	20.21
Wheeling-Pittsburgh Steel	392	20.04
Thorn Apple Valley	400	19.61
Triangle Industries	216	16.67

THE FIVE LOWEST

International Harvester	104	$-5.60
Tosco	234	-8.06
Storage Technology	396	-12.37
A.H. Robins	382	-14.98
Allis-Chalmers	315	-42.48

THE INDUSTRY MEDIANS

Food	$5.73
Toys, sporting goods	5.33
Transportation equipment	4.23
Aerospace	3.60
Motor vehicles and parts	3.56
Petroleum refining	3.49
Textiles	3.42
Apparel	3.42
Furniture	3.36
Rubber products	3.21
Soaps, cosmetics	3.19
Metal products	2.80
Beverages	2.73
Electronics	2.63
Industrial and farm equipment	2.52
Building materials	2.50
Chemicals	2.45
Metals	2.42
Forest products	2.38
Publishing, printing	2.28
Tobacco	2.25
Scientific and photographic equipment	2.02
Computers (includes office equipment)	2.01
Mining, crude-oil production	1.86
Pharmaceuticals	1.72
All Industries	*2.80*

ASSETS PER EMPLOYEE

THE TEN HIGHEST

	Sales rank	
Louisiana Land & Exploration	273	1,699,274
Texas Oil & Gas	220	1,052,121
Valero Energy	144	893,363
Shell Oil	14	754,344
Amerada Hess	48	750,236
National Cooperative Refinery Assoc.	339	698,743
Texaco	6	692,039
Atlantic Richfield	12	647,891
Chevron	7	639,321
Tosco	234	635,672

THE FIVE LOWEST

Ogden	197	$21,392
Oxford Industries	433	19,011
Kellwood	424	18,775
EG&G	283	18,687
Interstate Bakeries	383	15,804

THE INDUSTRY MEDIANS

Petroleum refining	$469,281
Mining, crude-oil production	334,372
Beverages	128,779
Forest products	128,286
Tobacco	119,952
Soaps, cosmetics	116,958
Chemicals	114,844
Pharmaceuticals	108,175
Metals	107,359
Toys, sporting goods	95,502
Building materials	93,883
Publishing, printing	88,301
Computers (includes office equipment)	74,587
Industrial and farm equipment	71,299
Food	69,907
Metal products	68,658
Motor vehicles and parts	68,650
Scientific and photographic equipment	63,645
Rubber products	63,360
Electronics	60,945
Transportation equipment	58,218
Aerospace	56,970
Textiles	50,052
Furniture	40,293
Apparel	31,984
All Industries	*79,190*

SALES PER EMPLOYEE

THE TEN HIGHEST

	Sales rank	
Pacific Resources	252	$1,583,920
National Cooperative Refinery Assoc.	339	1,583,306
Tosco	234	1,528,378
Louisiana Land & Exploration	273	1,465,417
Valero Energy	144	1,191,939
Ag Processing	402	1,185,026
Amerada Hess	48	923,213
Texaco	6	849,782
Atlantic Richfield	12	714,281
American Petrofina	157	700,350

THE FIVE LOWEST

Oxford Industries	433	$45,192
Hartmarx	291	44,381
Baxter Travenol Laboratories	160	38,607
Scott & Fetzer	381	37,455
Kellwood	424	36,783

THE INDUSTRY MEDIANS

Petroleum refining	$486,325
Mining, crude-oil production	241,004
Beverages	155,437
Food	155,185
Toys, sporting goods	135,365
Forest products	131,109
Metals	129,628
Chemicals	124,067
Soaps, cosmetics	123,638
Building materials	115,880
Transportation equipment	111,651
Publishing, printing	103,953
Pharmaceuticals	100,704
Tobacco	99,156
Rubber products	98,939
Motor vehicles and parts	97,523
Aerospace	88,201
Metal products	87,492
Industrial and farm equipment	86,848
Computers (includes office equipment)	86,796
Scientific and photographic equipment	77,156
Furniture	76,383
Electronics	72,650
Textiles	62,271
Apparel	54,703
All Industries	*105,976*

THE MONEY LOSERS

	1985 sales rank	Loss
LTV	43	$723,900,000*
AMAX	183	621,000,000*
Diamond Shamrock	93	604,700,000
Union Carbide	39	581,000,000
Control Data	106	567,500,000
International Harvester	104	363,636,000*
B.F. Goodrich	123	354,600,000
Warner-Lambert	125	315,596,000
Wheeling-Pittsburgh Steel	392	303,072,000*
Reynolds Metals	113	291,600,000
Inspiration Resources	289	291,447,000*
Allied-Signal	37	279,000,000
Smith International	387	265,076,000*
Amerada Hess	48	260,409,000
Atlantic Richfield	12	202,000,000
Dresser Industries	91	196,400,000
Bethlehem Steel	70	196,000,000*
Kaiser Aluminum & Chem.	143	186,500,000*
Inland Steel	126	178,378,000*
Gould	233	175,700,000
Allis-Chalmers	315	168,383,000*
Fairchild Industries	329	167,095,000
Olin	195	165,354,000
Black & Decker	212	158,425,000
Norton	277	129,825,000
American Motors	98	125,263,000
Eagle-Picher Industries	403	119,899,000
Texas Instruments	75	118,700,000
Allegheny International	171	109,143,000
Koppers	207	101,071,000
Monsanto	53	98,000,000
Combustion Engineering	127	95,413,000
Cabot	168	86,375,000
Clark Equipment	313	85,472,000
Computervision	494	80,777,000
General Mills	64	72,900,000
Asarco	281	62,184,000*
Avon Products	133	59,900,000
Mack Trucks	178	59,216,000
Storage Technology	396	57,437,000
Easco	445	53,778,000*
Datapoint	458	48,264,000
CBI Industries	228	46,964,000
Manville	198	45,067,000
Cincinnati Milacron	373	44,767,000
Gifford-Hill	481	43,909,000
Lever Brothers	177	38,529,000
Newmont Mining	375	34,850,000
Foxboro	429	34,154,000
H.H. Robertson	412	31,987,000
Reichhold Chemicals	354	28,432,000
Crown Zellerbach	128	26,800,000
Ogden	197	21,641,000
United Merchants & Mfrs.	361	20,366,000
Pennwalt	299	19,721,000
Aluminum Co. of America	69	16,600,000
Wilson Foods	232	16,185,000
J.P. Stevens	201	15,493,000
First City Industries	389	10,274,000
American Petrofina	157	10,163,000
Southwest Forest Industries	386	9,823,000
General Instrument	308	9,600,000
Zenith Electronics	225	7,700,000
TRW	57	7,088,000
Trinity Industries	490	5,965,000
American Maize-Products	499	4,668,000
Timken	295	3,903,000
Roper	430	3,894,000
Swift Independent	139	550,000
Thorn Apple Valley	400	428,000

*Also lost money in 1984.

ARRIVALS AND DEPARTURES

NEWCOMERS TO THE 500

	Sales rank
Ag Processing	402
American Maize-Products	499
Bowater	334
California & Hawaiian Sugar	448
Chesapeake	491
Claiborne (Liz)	437
Commerce Clearing House	492
Compaq Computer	463
Dataproducts	479
DWG	301
First City Industries	389
Hon Industries	478
Masco Industries	417
Miller (Herman)	469
Minstar	267
Philips Industries	484
Pierce (S.S.)	498
Riceland Foods	442
Scientific-Atlanta	497
Standard Register	495
SCI Systems	446
Telex	422
Texas Oil & Gas	220
Triangle Industries	216
Valero Energy	144
Winnebago Industries	500

RETURNED TO THE 500*

Ampco-Pittsburgh (1981: 493)	486
Barnes Group (1982: 484)	480
Farmland Industries (1981: 64)	87
Harnischfeger (1982: 479)	473
Pacific Resources (1983: 225)	252
Triangle Industries (1970: 499)	216
Trinity Industries (1983: 465)	490

DISPLACED FROM THE 500

	1984 sales rank
AMF[1]	288
Avco[2]	176
BOC[3]	265
Badische[4]	377
Coachmen Industries	451
Cessna Aircraft[5]	380
Copperweld	484
Diebold	469
Gulfstream Aerospace[6]	406
Gulf & Western Industries[7]	77
Hoover[8]	385
Hoover Universal[9]	340
Katy Industries	492
Lukens	500
Lowenstein (M.)[10]	402
Management Assistance[11]	487
Medtronic	496
McGraw-Edison[12]	218
Nabisco Brands[13]	54
National Can[14]	188
National Intergroup[7]	159
Oak Industries	490
Pabst Brewing[15]	399
Palm Beach	477
ROLM[16]	397
Riegel Textile[17]	488
Scovill[18]	344
Searle (G.D.)[19]	266
Shaklee	476
Signal Companies[20]	61
Stauffer Chemical[21]	235
Wyman-Gordon	495

*Figures in parentheses indicate year and sales rank the last time the company was listed.

[1] Acquired by Minstar (rank: 267) October 3, 1985.

[2] Acquired by Textron (rank: 74) February 28, 1985.

[3] Figures no longer made public.

[4] Consolidated into BASF (rank: 149) December 31, 1985.

[5] Acquired by General Dynamics (rank: 42) March 3, 1985.

[6] Acquired by Chrysler (rank: 13) August 16, 1985.

[7] No longer classified as an industrial.

[8] Acquired by Chicago Pacific November 20, 1985.

[9] Acquired by Johnson Controls (rank: 210) May 11, 1985.

[10] Acquired by Springs Industries (rank: 307) November 2, 1985

[11] Plan of liquidation adopted January 29, 1985.

[12] Acquired by Cooper Industries (rank: 129) May 31, 1985.

[13] Acquired by R. J. Reynolds (rank: 23) September 10, 1985.

[14] Acquired by Triangle Industries (rank: 216) June 28, 1985.

[15] Acquired by S&P February 27, 1985.

[16] Acquired by IBM (rank: 5) November 21, 1984.

[17] Acquired by Mt. Vernon Mills September 30, 1985.

[18] Acquired by First City Industries (rank: 389) August 15, 1985.

[19] Acquired by Monsanto (rank: 53) October 1, 1985.

[20] Acquired by Allied (rank: 37) September 19, 1985.

[21] Acquired by Chesebrough-Pond's (rank: 136) March 28, 1985.

Companies are ranked in **BOLDFACE** among the 500, in LIGHTFACE within the industry.

INDUSTRY Companies are identified in the main directory by industry code. See page 232 for key.	SALES	ASSETS	NET INCOME	SALES CHANGE FROM '84	PROFITS CHANGE FROM '84	STOCK-HOLDERS' EQUITY	NUMBER OF EM-PLOYEES	NET INCOME AS PERCENT OF:		10-YR. EARN-INGS PER SHARE GROWTH	TOTAL RETURN TO INVESTORS:		ASSETS PER EMPL.	SALES PER EMPL.
								SALES	STOCK-HOLDERS' EQUITY		10-YR. AVG.	1985		
AEROSPACE														
Allied-Signal	**37** 6	**21** 1	**467** 15	**481** 15	—	**18** 2	**13** 2	—	—	—	**284** 15	**151** 3	**209** 1	**455** 15
Boeing	**21** 2	**34** 3	**25** 2	**23** 3	**312** 10	**29** 4	**22** 4	**226** 10	**200** 8	**33** 1	**32** 2	**145** 2	**219** 2	**163** 1
Ex-Cell-O	**287** 13	**299** 13	**216** 11	**333** 11	**204** 8	**249** 13	**216** 13	**167** 5	**235** 10	**185** 10	**114** 8	**185** 5	**407** 10	**411** 14
Fairchild Industries	**329** 14	**320** 14	**457** 14	**284** 10	—	**481** 15	**248** 14	—	—	—	**166** 11	**451** 15	**378** 9	**410** 13
General Dynamics	**42** 7	**71** 6	**46** 4	**183** 9	**210** 9	**100** 8	**23** 5	**197** 7	**19** 2	**54** 4	**67** 6	**391** 14	**444** 15	**363** 10
Grumman	**131** 11	**195** 11	**407** 13	**58** 6	**385** 12	**217** 11	**113** 11	**407** 13	—	**231** 11	**133** 9	**290** 11	**423** 12	**296** 5
Lockheed	**36** 5	**74** 8	**45** 3	**66** 8	**110** 5	**88** 7	**34** 7	**218** 9	**25** 3	**63** 6	**26** 1	**324** 12	**431** 13	**240** 3
Martin Marietta	**85** 10	**149** 10	**68** 8	**336** 12	—	**192** 10	**63** 9	**143** 3	**7** 1	**44** 3	**58** 5	**263** 9	**440** 14	**325** 8
McDonnell Douglas	**29** 3	**38** 5	**48** 5	**59** 7	**176** 7	**4** 1	**26** 6	**287** 11	**390** 12	**101** 7	**140** 10	**364** 13	**276** 5	**203** 2
Northrop	**71** 8	**143** 9	**74** 9	**21** 2	**69** 2	**162** 9	**68** 10	**216** 8	**36** 4	**42** 2	**38** 3	**218** 7	**419** 11	**242** 4
Rockwell International	**30** 4	**37** 4	**23** 1	**42** 5	**93** 4	**47** 5	**17** 3	**156** 4	**60** 5	**59** 5	**87** 7	**285** 10	**362** 6	**308** 6
Rohr Industries	**415** 15	**413** 15	**238** 12	**352** 13	**78** 3	**343** 14	**344** 15	**68** 1	**88** 6	—	**49** 4	**165** 4	**367** 7	**371** 11
Sundstrand	**258** 12	**225** 12	**185** 10	**36** 4	**141** 6	**220** 12	**212** 12	**135** 2	**210** 9	**182** 9	**205** 13	**214** 6	**243** 3	**372** 12
Textron	**74** 9	**73** 7	**67** 7	**13** 1	**15** 1	**84** 6	**57** 8	**168** 6	**152** 7	**170** 8	**233** 14	**105** 1	**259** 4	**322** 7
United Technologies	**16** 1	**29** 2	**54** 6	**389** 14	**347** 11	**28** 3	**7** 1	**337** 12	**325** 11	**280** 12	**199** 12	**255** 8	**373** 8	**341** 9
APPAREL														
Claiborne (Liz)	**437** 10	**485** 11	**206** 3	**17** 1	**38** 1	**416** 5	**483** 11	**25** 1	**6** 1	—	—	**18** 3	**185** 1	**56** 1
Cluett Peabody	**314** 5	**355** 5	—	**296** 8	—	—	**211** 5	—	—	—	**104** 5	**113** 5	**461** 4	**473** 5
Hartmarx	**291** 4	**329** 4	**251** 4	**253** 6	**197** 5	**310** 3	**146** 4	**242** 3	**203** 4	**64** 3	**124** 6	**134** 7	**489** 8	**495** 10
INTERCO	**146** 1	**200** 2	**191** 2	**364** 10	**328** 7	**126** 1	**65** 1	**301** 5	**330** 7	**290** 4	**307** 9	**243** 9	**481** 6	**481** 6
Kellwood	**424** 8	**459** 7	**353** 6	**307** 9	**173** 4	**463** 8	**213** 6	**309** 6	**130** 3	**4** 1	**144** 7	**16** 2	**496** 11	**498** 11
Levi Strauss	**148** 2	**155** 1	—	**268** 7	—	—	**99** 2	—	—	—	—	—	**368** 2	**434** 4
Manhattan Industries	**457** 11	**480** 9	**406** 9	**47** 3	**381** 9	**467** 9	**383** 10	**404** 9	**389** 9	—	**156** 8	**335** 10	**455** 3	**343** 2
Oxford Industries	**433** 9	**483** 10	**386** 8	**382** 11	**365** 8	**444** 7	**249** 7	**373** 8	**349** 8	**297** 5	**85** 4	**120** 6	**495** 10	**494** 9
Phillips-Van Heusen	**423** 7	**467** 8	**356** 7	**69** 4	**254** 6	**433** 6	**340** 9	**310** 7	**248** 6	—	**46** 2	**211** 8	**467** 5	**392** 3
VF	**239** 3	**288** 3	**112** 1	**27** 2	**143** 2	**230** 2	**112** 3	**42** 2	**29** 2	**39** 2	**40** 1	**14** 1	**490** 9	**493** 8
Warnaco	**420** 6	**456** 6	**325** 5	**213** 5	**156** 3	**398** 4	**270** 8	**246** 4	**225** 5	—	**70** 3	**37** 4	**488** 7	**482** 7
BEVERAGES														
Anheuser-Busch	**51** 3	**57** 3	**39** 3	**173** 5	**130** 5	**66** 3	**87** 2	**111** 6	**70** 4	**73** 5	**190** 5	**30** 1	**125** 5	**91** 2
Brown-Forman	**323** 8	**275** 7	**168** 6	**180** 6	**148** 6	**260** 6	**371** 8	**51** 4	**95** 5	**72** 4	**60** 3	**90** 3	**99** 3	**141** 6
Coca-Cola	**44** 2	**40** 1	**16** 1	**129** 3	**122** 4	**45** 2	**92** 3	**49** 3	**34** 2	**162** 7	**314** 7	**150** 5	**62** 2	**69** 1
Coors (Adolph)	**259** 5	**226** 5	**226** 7	**96** 2	**94** 2	**148** 5	**300** 6	**223** 8	**350** 9	—	**417** 8	**155** 6	**110** 4	**149** 7
General Cinema	**312** 7	**271** 6	**156** 5	**207** 7	**291** 9	**290** 7	**237** 4	**44** 2	**40** 3	**34** 2	**68** 4	**124** 4	**294** 8	**407** 8
Heileman (G.) Brewing	**280** 6	**338** 8	**247** 8	**339** 9	**235** 7	**327** 8	**356** 7	**253** 9	**169** 7	**31** 1	**29** 2	**297** 7	**213** 7	**109** 4
MEI	**358** 9	**385** 9	**263** 9	**136** 4	**265** 8	**366** 9	**423** 9	**193** 7	**133** 6	**61** 3	**14** 1	**378** 8	**198** 6	**119** 5
PepsiCo	**41** 1	**51** 2	**27** 2	**323** 8	**13** 1	**71** 4	**9** 1	**109** 5	**16** 1	**93** 6	**244** 6	**41** 2	**457** 9	**478** 9
Seagram (Joseph E.) & Sons	**218** 4	**59** 4	**53** 4	**89** 1	**115** 3	**43** 1	**292** 5	**2** 1	**264** 8	—	—	—	**18** 1	**102** 3
BUILDING MATERIALS														
Anchor Hocking	**378** 15	**381** 16	**403** 14	**308** 12	—	**356** 15	**275** 12	**398** 14	**396** 14	**343** 13	**320** 10	**173** 7	**435** 16	**443** 16
Brockway	**305** 12	**390** 17	**340** 12	**186** 5	**11** 1	**372** 16	**256** 11	**354** 12	**302** 11	**293** 11	**332** 11	**53** 4	**450** 17	**338** 12
CertainTeed	**290** 11	**307** 14	**227** 10	**429** 17	**83** 3	**266** 12	**350** 13	**183** 7	**236** 6	**212** 7	**337** 12	**234** 9	**184** 8	**123** 2
Corning Glass Works	**217** 9	**160** 6	**119** 4	**374** 16	**57** 2	**113** 3	**148** 5	**66** 2	**244** 7	**107** 3	**238** 6	**24** 1	**240** 10	**438** 15
Gifford-Hill	**481** 18	**434** 18	**432** 15	**209** 6	—	**424** 17	**470** 17	—	—	—	**214** 4	**437** 17	**134** 5	**129** 3
Guardian Industries	**438** 17	**310** 15	—	**269** 9	—	—	—	—	—	—	—	—	—	—
Lafarge	**318** 13	**262** 13	**363** 13	**287** 11	—	**296** 14	**387** 15	**364** 13	**370** 13	—	—	**379** 15	**70** 3	**116** 1
Libbey-Owens-Ford	**190** 6	**220** 8	**184** 8	**144** 2	**177** 10	**189** 8	**139** 3	**240** 10	**260** 8	**190** 6	**258** 8	**327** 13	**410** 15	**413** 14
Lone Star Industries	**346** 14	**224** 9	**213** 9	**477** 18	**163** 9	**228** 10	**366** 14	**96** 4	**299** 10	**230** 9	**243** 7	**240** 10	**56** 2	**165** 6
Manville	**198** 7	**137** 4	**434** 16	**252** 8	—	**168** 7	**167** 7	—	—	—	**436** 16	**380** 16	**156** 6	**318** 11
Moore McCormack	**426** 16	**261** 12	**331** 11	**132** 1	**145** 8	**289** 13	**456** 16	**255** 11	**357** 12	**319** 12	**342** 13	**284** 12	**40** 1	**136** 4
National Gypsum	**214** 8	**253** 10	**159** 7	**327** 13	**283** 12	**219** 9	**232** 10	**165** 5	**163** 3	**84** 2	**76** 2	**31** 2	**235** 12	**170** 7
Norton	**277** 10	**260** 11	**454** 17	**354** 15	—	**247** 11	**193** 8	—	—	—	**226** 5	**337** 14	**387** 14	**446** 17

INDUSTRY Companies are identified in the main directory by industry code. See page 232 for key.	SALES	ASSETS	NET INCOME	SALES CHANGE FROM '84	PROFITS CHANGE FROM '84	STOCK-HOLDERS' EQUITY	NUMBER OF EM-PLOYEES	NET INCOME AS PERCENT OF:		10-YR. EARN-INGS PER SHARE GROWTH	TOTAL RETURN TO INVESTORS:		ASSETS PER EMPL.	SALES PER EMPL.
								SALES	STOCK-HOLDERS' EQUITY		10-YR. AVG.	1985		
Owens-Corning Fiberglas	**118** 3	**140** 5	**123** 5	**145** 3	**118** 5	**145** 5	**145** 4	**235** 9	**177** 4	**132** 5	**349** 15	**277** 11	**205** 9	**161** 5
Owens-Illinois	**108** 2	**93** 2	**100** 3	**237** 7	**120** 7	**87** 2	**76** 1	**215** 8	**268** 9	**229** 9	**316** 9	**181** 8	**273** 13	**349** 13
PPG Industries	**88** 1	**75** 1	**56** 1	**275** 10	**216** 11	**78** 1	**97** 2	**90** 3	**91** 2	**128** 4	**153** 3	**80** 5	**167** 7	**209** 9
USG	**152** 4	**182** 7	**73** 2	**152** 4	**92** 4	**139** 4	**164** 6	**50** 1	**41** 1	**27** 1	**64** 1	**33** 3	**253** 11	**219** 10
Walter (Jim)	**166** 5	**114** 3	**132** 6	**334** 14	**119** 6	**159** 6	**196** 9	**175** 6	**217** 5	**240** 10	**346** 14	**137** 6	**78** 4	**176** 8
CHEMICALS														
Air Products & Chemicals	**205** 19	**127** 10	**107** 6	**208** 9	**199** 13	**116** 8	**187** 12	**67** 5	**216** 14	**181** 10	**351** 26	**135** 8	**108** 17	**282** 39
American Cyanamid	**109** 6	**91** 6	**124** 9	**405** 32	**330** 26	**81** 6	**101** 6	**261** 19	**307** 22	**298** 21	**252** 17	**291** 26	**206** 30	**267** 36
American Hoechst	**221** 21	**221** 20	**391** 32	**419** 34	**379** 31	**196** 17	**307** 23	**397** 33	**397** 33	—	—	—	**90** 13	**78** 7
Avery International	**319** 26	**354** 35	**236** 20	**282** 17	**202** 14	**316** 33	**302** 22	**162** 13	**153** 9	**21** 1	**266** 18	**310** 28	**324** 36	**271** 37
BASF	**149** 10	**146** 11	**259** 23	**3** 1	**17** 2	**152** 12	**170** 9	**362** 28	**364** 28	—	—	—	**166** 22	**189** 22
Big Three Industries	**351** 33	**246** 22	**361** 30	**179** 7	**368** 29	**240** 25	**421** 34	**352** 26	**378** 29	**318** 24	**354** 28	**225** 19	**52** 4	**112** 15
CF Industries	**326** 27	**274** 28	—	**295** 18	—	**241** 26	**488** 41	—	—	—	—	—	**14** 1	**19** 1
Cabot	**168** 12	**193** 16	**446** 36	**28** 2	—	**208** 19	**339** 26	—	—	—	**69** 4	**405** 34	**51** 3	**47** 3
Celanese	**132** 8	**113** 7	**90** 4	**446** 37	**153** 10	**131** 10	**190** 13	**132** 12	**96** 5	**85** 4	**162** 12	**19** 3	**85** 12	**105** 13
Dexter	**404** 39	**395** 38	**304** 25	**298** 19	**231** 17	**369** 36	**405** 33	**199** 16	**219** 15	**169** 7	**127** 8	**158** 11	**225** 32	**215** 27
Dow Chemical	**28** 2	**25** 2	**214** 19	**306** 21	**380** 32	**24** 2	**61** 5	**392** 31	**392** 32	**345** 26	**410** 34	**87** 7	**47** 2	**66** 5
Dow Corning	**336** 30	**254** 25	**150** 11	**211** 10	**184** 12	**224** 21	**381** 30	**31** 3	**116** 7	—	—	—	**71** 9	**131** 18
Du Pont (E.I.) de Nemours	**9** 1	**12** 1	**13** 1	**486** 41	**294** 23	**11** 1	**11** 1	**248** 18	**288** 19	**173** 8	**352** 27	**144** 10	**63** 8	**72** 6
Engelhard	**165** 11	**273** 27	**250** 21	**460** 39	**242** 18	**239** 24	**358** 29	**344** 25	**294** 20	—	—	**423** 35	**116** 18	**43** 2
Ethyl	**229** 23	**196** 17	**127** 10	**436** 35	**253** 20	**173** 14	**281** 20	**73** 6	**165** 11	**187** 11	**78** 5	**39** 5	**92** 14	**127** 17
FMC	**120** 7	**119** 8	**83** 3	**373** 31	**5** 1	**120** 9	**132** 7	**122** 10	**97** 6	**195** 13	**193** 13	**279** 24	**199** 28	**208** 25
Ferro	**401** 38	**430** 40	**380** 31	**361** 29	**337** 27	**390** 38	**330** 24	**366** 30	**363** 27	**307** 22	**294** 21	**169** 13	**425** 40	**364** 40
Fuller (H.B.)	**489** 41	**476** 41	**359** 29	**345** 28	**77** 6	**452** 41	**445** 38	**277** 21	**196** 12	**99** 5	**99** 6	**241** 21	**366** 38	**254** 34
GAF	**374** 36	**285** 29	**178** 12	**332** 27	**51** 5	**326** 34	**449** 40	**29** 2	**27** 2	**200** 14	**106** 7	**5** 1	**53** 5	**101** 12
Grace (W.R.)	**49** 4	**56** 5	**105** 5	**170** 6	**302** 24	**56** 5	**18** 2	**336** 23	**342** 26	**315** 23	**276** 19	**221** 18	**436** 41	**464** 41
Hercules	**147** 9	**123** 9	**120** 8	**322** 24	**319** 25	**90** 7	**143** 8	**163** 14	**287** 18	**136** 6	**344** 25	**271** 23	**180** 26	**265** 35
Insilco	**357** 35	**335** 32	**313** 26	**262** 13	**292** 22	**315** 32	**349** 28	**278** 22	**295** 21	**244** 15	**150** 11	**294** 27	**217** 31	**235** 30
Koppers	**207** 20	**248** 23	**449** 38	**330** 26	—	**273** 29	**271** 18	—	—	—	**389** 33	**280** 25	**201** 29	**106** 14
Liquid Air	**441** 40	**346** 34	**290** 24	**164** 5	**111** 8	**344** 35	**447** 39	**131** 11	**234** 16	**284** 19	**371** 32	**172** 14	**95** 16	**186** 21
Lubrizol	**335** 29	**289** 30	**209** 18	**154** 4	**252** 19	**238** 23	**422** 35	**98** 9	**237** 17	**265** 17	**367** 31	**176** 15	**72** 10	**95** 10
Mobay	**227** 22	**236** 21	**180** 14	**263** 14	**180** 11	**211** 20	**391** 31	**182** 15	**215** 13	—	—	—	**54** 6	**51** 4
Monsanto	**53** 5	**35** 4	**448** 37	**314** 22	—	**35** 4	**55** 4	—	—	—	**366** 30	**334** 30	**80** 11	**200** 24
Morton Thiokol	**185** 17	**217** 18	**81** 2	**370** 30	**23** 3	**193** 16	**194** 14	**34** 4	**20** 1	**25** 2	**50** 1	**164** 12	**268** 34	**237** 31
NL Industries	**246** 24	**192** 15	**330** 27	**238** 11	—	**177** 15	**251** 16	**363** 29	**381** 30	**330** 25	**306** 22	**239** 20	**122** 19	**213** 26
Nalco Chemical	**391** 37	**372** 36	**187** 16	**270** 15	**229** 16	**292** 30	**426** 36	**26** 1	**73** 3	**194** 12	**331** 24	**377** 32	**176** 25	**152** 19
National Distillers & Chem.	**184** 16	**161** 12	**179** 13	**450** 38	**32** 4	**160** 13	**280** 19	**237** 17	**314** 24	**292** 20	**234** 15	**136** 9	**57** 7	**81** 8
National Starch & Chemical	**343** 32	**337** 33	**201** 17	**241** 12	**91** 7	**297** 31	**397** 32	**77** 7	**94** 4	—	—	—	**153** 21	**121** 16
Olin	**195** 18	**192** 14	**456** 39	**445** 36	—	**197** 18	**221** 15	—	—	—	**280** 20	**213** 17	**173** 24	**177** 20
Pennwalt	**299** 25	**270** 26	**423** 34	**321** 23	—	**259** 27	**291** 21	—	—	—	**321** 23	**313** 29	**197** 27	**248** 33
Reichhold Chemicals	**354** 34	**387** 37	**427** 35	**272** 16	—	**404** 40	**439** 37	—	—	—	**227** 14	**373** 31	**168** 23	**85** 9
Rohm & Haas	**179** 15	**181** 13	**111** 7	**326** 25	**285** 21	**150** 11	**259** 17	**93** 8	**158** 10	**37** 3	**248** 16	**256** 22	**93** 15	**97** 11
SCM	**172** 14	**218** 19	**254** 22	**124** 3	**214** 15	**229** 22	**176** 10	**342** 24	**320** 25	**257** 16	**62** 3	**32** 4	**313** 35	**239** 32
Sherwin-Williams	**170** 13	**252** 24	**183** 15	**202** 8	**124** 9	**261** 28	**179** 11	**267** 20	**134** 8	**175** 9	**129** 9	**71** 6	**394** 39	**223** 28
Sun Chemical	**342** 31	**327** 31	**396** 33	**299** 20	**375** 30	**395** 39	**334** 25	**394** 32	**383** 31	—	**53** 2	**203** 16	**237** 33	**232** 29
Tyler	**332** 28	**400** 39	**355** 28	**461** 40	**354** 28	**385** 37	**347** 27	**356** 27	**313** 23	**276** 18	**134** 10	**385** 33	**334** 37	**195** 23
Union Carbide	**39** 3	**28** 3	**475** 40	**412** 33	—	**31** 3	**31** 3	—	—	—	**363** 29	**10** 2	**151** 20	**278** 38
COMPUTERS (INCLUDES OFFICE EQUIPMENT)														
AM International	**414** 19	**448** 22	**317** 16	**281** 20	**358** 18	**461** 23	**297** 13	**225** 14	**28** 2	**288** 16	**423** 20	**21** 2	**472** 25	**450** 24
Amdahl	**348** 14	**282** 15	**303** 13	**128** 9	**293** 16	**268** 14	**359** 16	**273** 15	**340** 18	—	—	**331** 14	**121** 4	**191** 5
Apple Computer	**191** 10	**268** 13	**204** 9	**29** 3	**232** 12	**231** 13	**448** 23	**279** 16	**247** 12	—	—	**445** 22	**47** 1	**28** 1
Burroughs	**72** 6	**68** 6	**69** 7	**233** 19	**203** 10	**53** 6	**52** 7	**177** 12	**270** 14	**263** 14	**413** 18	**301** 12	**271** 12	**352** 14
Compaq Computer	**463** 23	**453** 23	**310** 15	**14** 2	**18** 1	**434** 22	**486** 25	**155** 10	**67** 4	—	—	**11** 1	**69** 2	**49** 2
Computervision	**494** 25	**412** 20	**444** 23	**492** 24	—	**399** 20	**437** 22	—	—	—	**17** 5	**459** 24	**211** 7	**306** 10

INDUSTRY Companies are identified in the main directory by industry code. See page 232 for key.	**SALES**	**ASSETS**	**NET INCOME**	**SALES CHANGE FROM '84**	**PROFITS CHANGE FROM '84**	**STOCK-HOLDERS' EQUITY**	**NUMBER OF EM-PLOYEES**	**NET INCOME AS PERCENT OF:**		**10-YR. EARN-INGS PER SHARE GROWTH**	**TOTAL RETURN TO INVESTORS:**		**ASSETS PER EMPL.**	**SALES PER EMPL.**
								SALES	**STOCK-HOLDERS' EQUITY**		**10-YR. AVG.**	**1985**		
Control Data	**106** 8	**103** 8	**474** 25	**497** 25	—	**110** 9	**91** 8	—	—	—	**318** 14	**456** 23	**249** 9	**299** 9
Data General	**269** 13	**231** 12	**319** 17	**191** 15	**363** 19	**204** 12	**209** 12	**339** 19	**371** 19	**273** 15	**327** 15	**441** 20	**269** 11	**404** 20
Datapoint	**458** 22	**384** 18	**436** 21	**475** 22	—	**336** 17	**389** 18	—	—	—	**415** 19	**460** 25	**236** 8	**334** 13
Dataproducts	**479** 24	**441** 21	**309** 14	**63** 7	**175** 9	**360** 18	**414** 20	**129** 8	**243** 10	**139** 11	**102** 8	**354** 18	**305** 18	**323** 12
Digital Equipment	**55** 2	**43** 2	**38** 3	**52** 6	**52** 3	**26** 2	**33** 3	**97** 7	**277** 15	**51** 4	**295** 13	**272** 10	**299** 16	**402** 19
Gould	**233** 12	**214** 11	**459** 24	**360** 21	—	**201** 11	**189** 11	—	—	—	**339** 16	**110** 5	**279** 13	**358** 15
Hewlett-Packard	**58** 4	**53** 4	**33** 2	**176** 14	**306** 17	**33** 3	**37** 4	**74** 4	**218** 9	**68** 6	**275** 12	**347** 16	**318** 19	**388** 17
Honeywell	**56** 3	**60** 5	**60** 6	**169** 12	**104** 6	**52** 5	**27** 2	**213** 13	**249** 13	**138** 10	**149** 9	**281** 11	**398** 23	**430** 22
IBM	**5** 1	**3** 1	**1** 1	**151** 10	**220** 11	**1** 1	**2** 1	**19** 1	**58** 3	**127** 9	**257** 11	**210** 8	**120** 3	**190** 4
NCR	**89** 7	**77** 7	**52** 4	**201** 16	**243** 13	**59** 7	**48** 6	**82** 6	**184** 8	**82** 7	**88** 7	**89** 4	**336** 20	**435** 23
Nashua	**410** 18	**472** 24	**348** 18	**225** 18	**280** 14	**429** 21	**418** 21	**308** 17	**245** 11	**53** 5	**232** 10	**333** 15	**416** 24	**205** 6
Pitney Bowes	**204** 11	**176** 10	**101** 8	**203** 17	**164** 8	**172** 10	**130** 10	**59** 3	**80** 5	**98** 8	**73** 6	**149** 6	**353** 22	**458** 25
Prime Computer	**366** 15	**356** 16	**215** 10	**51** 5	**155** 7	**295** 16	**327** 15	**75** 5	**159** 6	**3** 1	**2** 1	**267** 9	**287** 15	**297** 8
SCI Systems	**446** 21	**474** 25	**364** 20	**37** 4	**96** 5	**462** 24	**452** 24	**313** 18	**176** 7	**23** 3	**3** 2	**353** 17	**349** 21	**182** 3
Sperry	**63** 5	**52** 3	**59** 5	**157** 11	**60** 4	**44** 4	**40** 5	**170** 11	**281** 16	**260** 13	**362** 17	**167** 7	**280** 14	**415** 21
Storage Technology	**396** 16	**278** 14	**438** 22	**483** 23	—	**489** 25	**317** 14	—	—	—	**424** 21	**440** 19	**172** 5	**381** 16
Tandem Computers	**409** 17	**367** 17	**279** 12	**68** 8	**289** 15	**280** 15	**407** 19	**148** 9	**298** 17	—	—	**312** 13	**189** 6	**221** 7
Telex	**422** 20	**407** 19	**228** 11	**6** 1	**34** 2	**391** 19	**370** 17	**45** 2	**23** 1	**6** 2	**10** 3	**54** 3	**303** 17	**317** 11
Wang Laboratories	**161** 9	**139** 9	**354** 19	**174** 13	**382** 20	**106** 8	**119** 9	**387** 20	**391** 20	**168** 12	**13** 4	**444** 21	**267** 10	**399** 18
ELECTRONICS														
AMP	**223** 22	**197** 19	**138** 12	**459** 44	**336** 34	**138** 15	**156** 22	**100** 7	**251** 20	**91** 10	**191** 24	**348** 30	**316** 17	**424** 26
Advanced Micro Devices	**321** 31	**308** 30	**117** 10	**10** 2	**20** 1	**269** 26	**217** 28	**11** 1	**15** 2	—	**9** 1	**395** 39	**421** 34	**469** 40
Allegheny International	**171** 18	**203** 20	**450** 45	**442** 41	—	**407** 44	**122** 19	—	—	—	**387** 42	**421** 44	**427** 36	**429** 31
American Tel. & Tel.	**8** 1	**5** 1	**9** 2	**221** 23	**129** 12	**6** 1	**4** 1	**201** 20	**275** 26	**334** 36	**404** 46	**188** 13	**140** 1	**258** 6
Bairnco	**447** 44	**431** 43	**328** 34	**255** 29	**271** 26	**414** 45	**411** 45	**232** 25	**198** 18	**48** 3	**20** 2	**386** 37	**292** 13	**274** 7
Champion Spark Plug	**352** 34	**342** 34	**357** 38	**293** 32	**335** 33	**298** 30	**247** 32	**349** 37	**365** 38	**329** 35	**399** 44	**270** 23	**408** 31	**445** 34
Cooper Industries	**129** 14	**85** 8	**118** 11	**16** 3	**76** 5	**101** 11	**70** 12	**204** 21	**265** 22	**225** 26	**223** 31	**99** 5	**250** 7	**444** 33
E-Systems	**317** 30	**399** 39	**243** 24	**76** 8	**305** 29	**313** 33	**233** 31	**188** 18	**175** 17	**83** 9	**36** 6	**238** 18	**469** 43	**428** 30
Eaton	**107** 12	**111** 12	**71** 8	**372** 37	**248** 24	**97** 10	**81** 14	**115** 9	**115** 10	**94** 11	**202** 27	**246** 19	**312** 16	**320** 12
Emerson Electric	**81** 9	**98** 10	**44** 4	**117** 11	**123** 9	**65** 6	**49** 9	**52** 4	**87** 8	**135** 17	**271** 35	**268** 22	**401** 30	**403** 22
First City Industries	**389** 37	**265** 25	**419** 44	**1** 1	—	**465** 46	**285** 35	—	—	—	**210** 29	**458** 47	**203** 4	**441** 32
General Electric	**10** 2	**10** 2	**5** 1	**301** 33	**194** 17	**9** 2	**5** 2	**58** 6	**109** 9	**124** 15	**207** 28	**194** 15	**229** 5	**304** 10
General Instrument	**308** 28	**293** 28	**416** 43	**148** 19	—	**214** 21	**229** 29	—	—	—	**118** 15	**343** 29	**350** 23	**417** 23
Harris	**163** 17	**175** 16	**172** 16	**86** 9	**218** 18	**169** 17	**117** 18	**262** 27	**283** 27	**2** 1	**255** 32	**384** 36	**374** 26	**418** 24
Harvey Hubbell	**456** 45	**433** 44	**237** 23	**115** 10	**128** 11	**335** 35	**395** 44	**43** 3	**120** 11	**146** 19	**142** 17	**146** 10	**319** 18	**316** 11
ITT	**25** 3	**19** 3	**58** 7	**452** 43	**323** 31	**16** 3	**6** 3	**325** 35	**362** 37	**309** 32	**302** 39	**184** 12	**347** 22	**480** 43
Intel	**251** 25	**153** 14	**405** 40	**482** 47	**384** 38	**94** 9	**165** 24	**405** 40	**402** 40	**348** 37	**200** 26	**367** 33	**188** 3	**452** 35
Johnson Controls	**210** 21	**174** 15	**176** 17	**31** 4	**107** 7	**181** 18	**129** 20	**208** 22	**266** 23	**77** 7	**71** 13	**261** 21	**345** 21	**467** 39
Kidde	**155** 15	**186** 18	**189** 18	**240** 26	**245** 23	**187** 19	**114** 17	**288** 29	**271** 24	**242** 28	**176** 21	**250** 20	**400** 29	**400** 21
Litton Industries	**82** 10	**66** 5	**57** 6	**426** 40	**233** 22	**146** 16	**53** 10	**105** 8	**13** 1	**17** 2	**31** 5	**189** 14	**247** 6	**380** 17
Loral	**465** 46	**391** 38	**252** 26	**48** 5	**82** 6	**347** 37	**372** 42	**55** 5	**129** 13	**65** 5	**28** 4	**140** 8	**275** 10	**391** 20
M/A-Com	**350** 33	**286** 27	**258** 27	**131** 14	**192** 16	**262** 25	**260** 33	**194** 19	**292** 29	**57** 4	**59** 11	**439** 45	**285** 12	**421** 25
Magic Chef	**297** 27	**368** 37	**225** 22	**319** 34	**224** 20	**333** 34	**296** 37	**169** 17	**83** 6	—	**48** 9	**88** 4	**370** 25	**233** 3
Maytag	**390** 38	**442** 45	**193** 20	**195** 22	**127** 10	**354** 39	**429** 46	**32** 2	**21** 3	**163** 20	**219** 30	**25** 1	**284** 11	**145** 1
Midland-Ross	**369** 35	**321** 32	**334** 35	**469** 45	—	**351** 38	**304** 39	**314** 32	**319** 32	**311** 33	**308** 41	**368** 34	**272** 9	**354** 16
Motorola	**66** 7	**72** 6	**192** 19	**358** 36	**373** 37	**61** 5	**32** 6	**370** 39	**374** 39	**272** 30	**261** 33	**303** 24	**428** 37	**470** 41
National Semiconductor	**209** 20	**209** 21	**248** 25	**167** 20	**318** 30	**199** 20	**98** 15	**319** 33	**337** 35	**238** 27	**396** 43	**362** 32	**460** 42	**491** 46
National Service Industries	**278** 26	**352** 35	**198** 21	**119** 12	**157** 14	**281** 29	**188** 26	**140** 13	**127** 12	**79** 8	**41** 7	**119** 6	**477** 44	**453** 36
Nortek	**416** 41	**306** 29	**341** 36	**57** 6	**185** 15	**406** 43	**373** 43	**292** 30	**274** 25	**129** 16	**107** 14	**389** 38	**143** 2	**303** 9
North American Philips	**86** 11	**124** 13	**169** 15	**292** 31	**327** 32	**127** 13	**62** 11	**347** 36	**309** 31	**213** 24	**168** 19	**398** 40	**412** 32	**344** 15
Pittway	**444** 43	**417** 41	**292** 31	**134** 15	**223** 19	**346** 36	**364** 41	**137** 12	**226** 19	**183** 21	**268** 34	**308** 25	**354** 24	**384** 18
Raychem	**394** 39	**332** 33	**306** 32	**185** 21	**298** 28	**302** 31	**298** 38	**221** 24	**304** 30	**216** 25	**278** 37	**48** 3	**304** 14	**426** 28
Raytheon	**60** 6	**90** 9	**47** 5	**227** 24	**29** 2	**69** 7	**44** 8	**130** 11	**66** 4	**96** 12	**173** 20	**168** 11	**433** 38	**328** 13
Sanders Associates	**341** 32	**353** 36	**265** 28	**60** 7	**267** 25	**304** 32	**265** 34	**220** 23	**257** 21	**277** 31	**42** 8	**403** 41	**396** 28	**387** 19
Scientific-Atlanta	**497** 47	**466** 47	**349** 37	**142** 16	**48** 3	**397** 42	**454** 47	**250** 26	**289** 28	**120** 14	**137** 16	**339** 27	**320** 19	**255** 5

INDUSTRY Companies are identified in the main directory by industry code. See page 232 for key.	**SALES**	**ASSETS**	**NET INCOME**	**SALES CHANGE FROM '84**	**PROFITS CHANGE FROM '84**	**STOCK-HOLDERS' EQUITY**	**NUMBER OF EM-PLOYEES**	**NET INCOME AS PERCENT OF:**		**10-YR. EARN-INGS PER SHARE GROWTH**	**TOTAL RETURN TO INVESTORS:**		**ASSETS PER EMPL.**	**SALES PER EMPL.**
								SALES	**STOCK-HOLDERS' EQUITY**		**10-YR. AVG.**	**1985**		
Scott & Fetzer	381 36	406 40	—	324 35	—	—	186 25	—	—	—	183 23	361 31	492 47	497 47
Singer	156 16	213 22	165 14	391 38	75 4	227 23	71 13	266 28	166 15	—	182 22	122 7	483 45	484 44
Square D	247 24	244 24	160 13	271 30	282 27	216 22	163 23	117 10	171 16	211 23	277 36	325 26	418 33	454 37
TRW	57 5	80 7	414 41	147 18	—	132 14	28 5	—	—	—	198 25	227 17	452 40	427 29
Texas Instruments	75 8	102 11	451 46	478 46	—	93 8	39 7	—	—	—	400 45	420 43	454 41	457 38
Tracor	431 42	419 42	365 39	146 17	356 36	389 40	295 36	321 34	328 33	256 29	23 3	409 42	447 39	476 42
Tyco Laboratories	395 40	444 46	274 29	251 28	109 8	393 41	362 40	160 16	86 7	71 6	57 10	141 9	422 35	287 8
Varian Associates	311 29	311 31	312 33	235 25	352 35	274 28	230 30	304 31	343 36	203 22	165 18	442 46	390 27	425 27
Westinghouse Electric	32 4	33 4	22 3	245 27	135 13	40 4	16 4	142 14	81 5	104 13	63 12	38 2	264 8	342 14
Whirlpool	112 13	177 17	88 9	127 13	230 21	109 12	142 21	157 15	157 14	141 18	301 38	341 28	310 15	150 2
White Consolidated Ind.	186 19	240 23	280 30	447 42	—	248 24	191 27	351 38	334 34	313 34	303 40	222 16	344 20	250 4
Zenith Electronics	225 23	276 26	415 42	414 39	—	272 27	108 16	—	—	—	408 47	371 35	485 46	488 45
FOOD														
Ag Processing	402 42	494 50	—	499 56	—	474 46	498 56	—	—	—	—	—	35 2	6 1
American Bakeries	485 54	495 51	383 35	435 51	85 11	475 47	368 32	359 31	220 29	279 34	247 26	103 23	493 55	433 51
American Maize-Products	499 56	461 41	412 44	239 29	—	451 39	476 45	—	—	—	391 35	419 39	178 15	120 29
Amstar	255 30	370 27	301 25	302 38	304 32	420 30	345 29	330 28	79 12	—	—	—	296 28	96 24
Anderson Clayton	206 23	272 21	347 32	53 9	353 38	225 18	228 21	380 36	377 39	314 35	228 25	77 16	317 29	160 35
Archer Daniels Midland	76 9	107 7	94 11	388 45	47 8	73 4	299 25	263 18	284 37	223 27	323 31	132 26	31 1	21 4
Beatrice	26 1	30 1	34 1	22 4	152 20	58 2	25 1	247 15	59 8	147 16	287 30	42 7	182 16	180 36
Borden	77 10	108 8	84 9	259 32	205 28	95 6	111 13	228 12	180 26	180 20	145 14	65 11	216 20	134 32
CPC International	90 12	105 6	110 14	390 46	307 33	99 8	89 12	268 19	262 34	270 32	260 28	197 33	261 26	241 43
Calif. & Hawaiian Sugar	448 48	488 47	—	468 54	—	478 49	490 52	—	—	—	—	—	88 7	34 10
Campbell Soup	100 14	132 13	82 8	149 22	188 24	98 7	74 9	174 7	173 25	191 21	206 22	121 25	393 38	321 46
Central Soya	222 24	376 28	385 37	467 53	361 40	—	412 37	395 40	—	—	—	—	195 19	45 14
ConAgra	65 7	198 17	154 17	8 1	36 5	267 20	126 14	357 30	65 9	15 3	12 4	85 19	413 40	83 23
Dart & Kraft	34 2	54 2	36 2	285 36	195 27	49 1	43 4	190 9	128 20	219 26	192 21	84 18	274 27	151 33
Dean Foods	304 35	449 36	287 24	105 18	89 12	423 32	427 39	282 21	55 7	35 6	8 3	81 17	330 30	70 22
Federal Co.	263 32	438 33	273 22	369 43	264 31	359 26	273 23	295 24	167 24	144 15	113 11	44 9	474 49	214 41
Flowers Industries	407 44	447 35	316 27	248 30	114 13	431 33	290 24	231 14	89 13	80 8	24 5	138 27	475 50	460 55
General Foods	38 3	69 4	51 3	228 28	193 26	68 3	56 7	257 16	110 17	164 19	37 6	—	244 22	110 27
General Mills	64 6	120 10	443 46	311 39	—	130 12	46 6	—	—	—	283 29	162 30	446 45	319 45
Gerber Products	322 36	365 26	219 19	77 14	138 17	305 22	223 20	121 5	132 21	137 14	160 16	36 6	458 46	451 53
Gold Kist	236 27	414 32	—	437 52	—	441 35	311 26	—	—	—	—	—	420 41	100 26
Hanson Industries N.A.	162 20	232 18	134 16	30 5	14 2	368 27	159 16	179 8	2 1	—	—	—	383 36	261 44
Heinz (H.J.)	97 13	129 12	64 5	276 35	142 19	107 9	72 8	102 3	50 6	95 10	117 12	94 22	397 39	326 47
Hershey Foods	182 22	238 19	131 15	178 23	191 25	185 15	218 19	147 6	151 23	158 18	94 7	166 31	252 24	156 34
Hormel (Geo. A.)	235 26	362 25	261 21	257 31	64 10	318 23	361 31	311 26	214 28	154 17	105 8	43 8	245 23	67 20
IC Industries	67 8	64 3	96 12	32 6	61 9	83 5	77 10	283 22	273 35	197 22	109 9	161 29	163 14	192 37
Idle Wild Foods	325 37	496 52	382 34	64 10	22 4	472 44	478 47	381 37	241 31	90 9	—	332 36	385 37	35 11
International Multifoods	274 33	383 30	329 29	91 16	322 35	371 28	335 28	350 29	280 36	258 30	215 24	76 15	332 32	122 30
Interstate Bakeries	383 39	492 49	384 36	273 34	355 39	473 45	269 22	376 33	253 32	266 31	167 17	93 21	498 56	459 54
Kellogg	138 18	183 15	61 4	101 17	140 18	198 16	201 17	40 1	3 2	123 12	184 18	28 5	187 17	98 25
Land O'Lakes	164 21	340 23	—	343 41	—	373 29	401 34	—	—	—	—	—	155 13	30 8
Lipton (Thomas J.)	262 31	305 22	171 18	116 20	131 14	265 19	420 38	112 4	99 14	—	—	—	91 8	58 19
McCormick	345 38	358 24	308 26	126 21	342 36	345 24	346 30	280 20	255 33	205 24	330 32	350 37	258 25	206 40
Michigan Milk Prod. Assoc.	460 50	500 56	—	427 50	—	484 53	496 55	—	—	—	—	—	136 11	11 2
Mid-America Dairymen	254 29	460 40	—	265 33	—	447 37	473 44	—	—	—	—	—	191 18	26 7
Monfort of Colorado	241 28	487 46	362 33	291 37	244 30	464 42	462 41	378 34	140 22	228 29	189 20	68 13	365 34	31 9
Ocean Spray Cranberries	452 49	458 39	—	71 12	—	454 40	487 50	—	—	—	—	—	65 6	46 15
Pierce (S.S.)	498 55	490 48	390 39	204 25	310 34	477 48	464 42	367 32	239 30	11 2	6 2	52 10	382 35	196 39
Pillsbury	80 11	115 9	86 10	108 19	134 15	114 10	29 2	229 13	119 18	125 13	208 23	143 28	484 51	486 56
Quaker Oats	111 15	170 14	99 13	218 26	136 16	175 14	131 15	202 10	68 10	66 7	141 13	91 20	331 31	194 38
Ralston Purina	61 5	125 11	65 6	65 11	178 23	154 13	45 5	209 11	22 3	119 11	259 27	182 32	462 47	351 49
Riceland Foods	442 47	484 45	—	407 48	—	442 36	489 51	—	—	—	—	—	104 9	42 13

INDUSTRY Companies are identified in the main directory by industry code. See page 232 for key.	SALES	ASSETS	NET INCOME	SALES CHANGE FROM '84	PROFITS CHANGE FROM '84	STOCKHOLDERS' EQUITY	NUMBER OF EMPLOYEES	NET INCOME AS PERCENT OF:		10-YR. EARNINGS PER SHARE GROWTH	TOTAL RETURN TO INVESTORS:		ASSETS PER EMPL.	SALES PER EMPL.
								SALES	STOCKHOLDERS' EQUITY		10-YR. AVG.	1985		
Sara Lee	45 4	100 5	75 7	75 13	161 22	125 11	30 3	315 27	69 11	7 1	110 10	67 12	473 48	331 48
Savannah Foods & Indus.	406 43	455 38	344 31	193 24	217 29	457 41	491 53	302 25	125 19	271 33	37 6	27 4	45 4	23 5
Smithfield Foods	398 40	498 54	399 41	35 7	43 7	485 54	451 40	391 39	102 15	28 5	—	4 2	487 53	118 28
Staley Continental	137 17	188 16	388 38	20 3	374 41	203 17	313 27	403 41	398 40	347 36	372 34	200 34	59 5	41 12
Sun-Diamond Growers	471 52	470 43	—	422 49	—	471 43	480 48	—	—	—	—	—	145 12	68 21
Swift Independent	139 19	454 37	409 43	375 44	—	448 38	375 33	—	—	—	—	376 38	429 42	25 6
Thorn Apple Valley	400 41	497 53	408 42	348 42	—	483 52	477 46	—	—	—	—	—	438 43	57 18
Tyson Foods	288 34	401 31	276 23	15 2	19 3	421 31	204 18	284 23	44 5	24 4	5 1	17 3	486 52	442 52
United Brands	124 16	257 20	323 28	393 47	344 37	299 21	82 11	385 38	336 38	210 25	147 15	3 1	491 54	382 50
Universal Foods	470 51	463 42	343 30	87 15	41 6	439 34	469 43	259 17	188 27	201 23	187 19	208 35	222 21	125 31
Wilson Foods	232 25	479 44	421 45	490 55	—	479 50	403 35	—	—	—	—	453 40	443 44	48 16
Winn Enterprises	440 46	380 29	393 40	45 8	9 1	486 55	484 49	379 35	30 4	—	—	117 24	42 3	55 17
Wisconsin Dairies	483 53	499 55	—	318 40	—	480 51	495 54	—	—	—	—	—	111 10	17 3
Wrigley (Wm. Jr.)	411 45	443 34	245 20	223 27	158 21	349 25	404 36	89 2	107 16	227 28	355 33	73 14	342 33	230 42
FOREST PRODUCTS														
Bemis	362 23	411 31	324 24	309 15	73 5	400 30	338 24	291 22	211 11	204 10	66 4	40 1	372 30	263 27
Boise Cascade	105 6	96 7	141 10	368 21	33 2	92 6	155 7	298 24	324 21	239 12	297 19	275 19	101 12	107 6
Bowater	334 21	223 17	199 15	398 26	239 17	279 21	444 31	79 3	137 5	—	—	232 15	33 1	71 1
Champion International	62 2	47 1	95 5	99 5	—	51 3	78 1	294 23	339 24	295 19	359 23	320 26	102 13	155 16
Chesapeake	491 33	351 27	351 28	25 1	314 22	380 29	441 30	264 19	318 19	268 14	231 14	293 22	109 15	264 28
Consolidated Papers	380 25	344 25	139 8	244 9	59 3	250 18	433 28	10 1	46 1	52 2	54 3	98 6	117 16	128 9
Crown Zellerbach	128 7	136 9	426 33	351 17	—	119 9	205 11	—	—	—	378 25	233 16	100 11	82 2
Dennison Manufacturing	399 28	408 30	387 30	384 24	372 29	378 28	320 21	377 30	375 30	316 22	121 8	253 18	384 31	375 31
Esselte Business Systems	388 27	348 26	278 21	88 4	125 9	330 25	279 18	176 12	228 12	—	—	47 2	363 29	448 33
Federal Paper Board	363 24	281 22	372 29	38 2	362 28	337 26	396 26	365 29	366 28	322 23	225 13	407 31	76 6	148 15
Fort Howard Paper	253 15	199 14	98 6	288 13	103 7	122 10	226 13	22 2	174 8	105 4	91 5	49 3	165 23	280 30
Georgia Kraft	434 30	333 24	289 22	261 11	190 13	294 22	472 33	138 8	296 17	—	—	—	50 2	87 3
Georgia-Pacific	54 1	63 4	87 4	421 30	27 [illegible]	67 4	95 2	299 25	297 18	285 16	403 27	356 28	127 18	90 4
Great Northern Nekoosa	188 11	165 11	239 19	256 10	357 27	142 13	227 14	320 27	358 26	300 21	242 16	276 20	103 14	143 14
Hammermill Paper	199 12	229 18	302 23	303 14	340 26	233 17	238 15	361 28	360 27	278 15	179 10	296 23	193 25	132 11
International Paper	83 4	48 2	121 7	401 27	150 10	41 2	115 5	289 21	373 29	323 24	401 26	400 30	58 4	142 13
James River Corp. of Va.	153 10	180 13	144 11	158 7	189 12	222 16	151 6	233 15	101 2	22 1	27 2	148 10	277 27	244 24
Jefferson Smurfit	405 29	445 32	346 27	432 32	317 23	443 33	378 25	305 26	190 9	—	—	108 8	392 32	266 29
Kimberly-Clark	94 5	88 6	63 1	100 6	98 6	75 5	100 3	104 6	156 6	167 7	163 9	133 9	202 26	229 23
Longview Fibre	487 32	393 29	326 25	406 28	206 14	377 27	471 32	178 13	261 13	342 26	310 20	204 14	82 7	130 10
Louisiana-Pacific	266 16	211 16	222 17	274 12	67 4	179 15	258 16	211 14	326 22	131 6	289 18	357 29	149 21	253 26
Mead	142 9	150 10	153 13	317 16	320 24	128 11	198 8	265 20	286 16	249 13	185 12	187 13	126 17	117 7
Pentair	449 31	457 33	333 26	366 20	236 16	436 32	436 29	249 18	161 7	87 3	11 1	163 11	333 28	228 22
Potlatch	316 20	243 19	264 20	397 25	299 21	255 19	336 23	236 16	327 23	296 20	365 24	179 12	97 10	198 20
Scott Paper	130 8	87 5	77 2	188 8	169 11	112 8	200 10	101 5	103 3	186 8	181 11	101 7	55 3	92 5
Sonoco Products	347 22	386 28	234 18	67 3	112 8	328 23	261 17	139 9	112 4	106 5	93 6	79 4	445 33	409 32
Southwest Forest Industries	386 26	331 23	417 32	462 33	—	409 31	408 27	—	—	—	328 21	436 32	132 20	171 18
Stone Container	270 18	258 20	397 31	353 18	377 30	329 24	301 20	400 31	393 31	337 25	103 7	249 17	171 24	164 17
Temple-Inland	268 17	207 15	162 14	356 19	275 19	170 14	294 19	94 4	276 15	—	—	289 21	87 9	178 19
Union Camp	200 13	122 8	151 12	417 29	339 25	102 7	199 9	164 11	322 20	289 17	345 22	315 25	84 8	245 25
Westvaco	215 14	167 12	140 9	377 22	287 20	135 12	219 12	120 7	263 14	192 9	236 15	306 24	128 19	220 21
Weyerhaeuser	68 3	50 3	78 3	425 31	257 18	37 1	104 4	243 17	347 25	294 18	409 28	344 27	64 5	126 8
Willamette Industries	285 19	279 21	208 16	378 23	222 15	256 20	328 22	158 10	206 10	235 11	262 17	96 5	159 22	139 12
FURNITURE														
Hon Industries	478 4	481 4	314 2	55 2	28 1	446 4	413 3	149 2	51 2	74 3	80 3	22 1	442 2	327 2
Leggett & Platt	475 3	471 3	321 3	137 3	117 3	425 3	348 2	171 3	143 3	43 2	33 2	29 2	465 3	449 3
Miller (Herman)	469 2	464 2	256 1	40 1	40 2	412 2	457 4	57 1	35 1	26 1	4 1	383 4	298 1	197 1
Mohasco	370 1	424 1	345 4	199 4	227 4	379 1	240 1	327 4	301 4	234 4	325 4	153 3	482 4	474 4

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								SALES	STOCK-HOLDERS' EQUITY		10-YR. AVG.	1985		
INDUSTRIAL AND FARM EQUIPMENT														
Allis-Chalmers	315 17	326 22	458 30	498 32	—	487 32	236 16	—	—	—	435 31	448 31	409 29	416 28
American Standard	115 4	147 5	327 16	206 14	369 19	155 8	86 5	368 21	380 19	321 13	131 7	196 7	377 26	345 18
Baker International	193 9	162 8	158 5	249 16	81 4	137 6	172 9	196 7	290 10	251 8	383 19	346 17	194 7	305 13
Black & Decker	212 10	208 11	455 29	98 4	—	242 14	160 8	—	—	—	405 25	410 28	326 18	389 25
Briggs & Stratton	379 25	418 29	282 11	190 11	228 10	334 22	323 25	192 6	227 9	226 7	380 18	358 18	414 30	329 16
Brunswick	231 11	259 14	147 3	232 15	174 8	237 13	180 11	106 4	71 3	19 3	52 3	195 6	405 28	370 22
Cameron Iron Works	439 29	292 17	398 22	198 13	—	307 20	357 28	386 20	395 21	344 18	394 22	375 20	146 4	390 26
Caterpillar Tractor	52 1	49 1	80 2	264 18	—	42 1	60 1	290 15	335 15	324 14	411 27	156 3	161 6	179 1
Cincinnati Milacron	373 24	328 23	433 25	123 6	—	339 23	305 22	—	—	—	132 8	430 30	293 16	377 23
Clark Equipment	313 16	283 16	445 26	494 31	—	275 17	287 21	—	—	—	386 20	369 19	224 10	293 11
Coleman	493 32	451 31	379 20	379 22	329 14	418 28	431 30	326 17	338 16	269 10	245 13	257 13	328 20	314 14
Combustion Engineering	127 6	152 7	447 27	290 19	—	202 11	147 7	—	—	—	241 12	399 25	227 11	181 2
Cummins Engine	174 8	185 10	232 9	439 29	367 18	182 10	178 10	324 16	333 14	—	177 11	408 27	230 12	236 6
Deere	96 3	55 2	295 13	438 28	364 17	64 2	84 4	383 19	388 20	340 17	395 23	397 24	113 3	268 7
Dover	244 12	255 13	148 4	113 5	221 9	209 12	208 13	91 3	136 5	88 4	101 6	286 15	351 22	337 17
Dresser Industries	91 2	99 3	463 31	135 7	—	80 3	69 3	—	—	—	402 24	388 21	306 17	324 15
Eagle-Picher Industries	403 27	404 28	452 28	385 23	—	456 29	325 26	—	—	—	292 14	199 8	369 24	383 24
Federal-Mogul	338 19	324 21	229 8	362 21	170 6	308 21	246 18	134 5	155 6	12 2	86 4	217 9	389 27	422 29
Figgie Int'l Holdings	359 22	361 26	300 15	162 8	25 1	375 25	214 14	254 9	191 7	134 5	97 5	26 1	471 32	485 32
Fuqua Industries	324 18	366 27	283 12	165 9	255 12	382 26	268 19	258 10	126 4	—	21 2	282 14	426 31	359 20
Harnischfeger	473 31	343 24	350 18	43 1	172 7	370 24	446 31	269 11	353 17	335 16	412 28	107 2	94 1	234 5
Harris Graphics	468 30	436 30	335 17	172 10	106 5	466 30	453 32	244 8	43 2	—	—	219 10	212 9	204 3
Hughes Tool	265 13	178 9	395 21	250 17	—	147 7	242 17	399 22	400 22	346 19	414 29	393 23	112 2	283 9
Ingersoll-Rand	145 7	151 6	174 6	194 12	54 2	129 5	106 6	286 14	311 12	310 12	406 26	252 12	327 19	397 27
Joy Manufacturing	360 23	300 19	360 19	62 3	351 16	278 18	318 24	348 18	372 18	328 15	388 21	401 26	207 8	301 12
Outboard Marine	344 20	318 20	298 14	400 24	334 15	291 19	308 23	271 12	317 13	253 9	299 15	392 22	242 13	272 8
Rexnord	293 14	263 15	270 10	50 2	71 3	257 16	234 15	276 13	310 11	305 11	353 16	248 11	286 15	355 19
Roper	430 28	465 32	410 23	347 20	—	468 31	428 29	—	—	—	172 10	340 16	371 25	222 4
Smith International	387 26	296 18	466 32	428 26	—	401 27	355 27	—	—	—	430 30	450 32	160 5	289 10
Tecumseh Products	353 21	345 25	210 7	443 30	269 13	254 15	284 20	85 2	212 8	142 6	136 9	170 4	346 21	368 21
Teledyne	122 5	117 4	26 1	430 27	234 11	86 4	67 2	3 1	8 1	10 1	7 1	171 5	364 23	437 30
Timken	295 15	216 12	411 24	409 25	—	174 9	197 12	—	—	—	369 17	424 29	254 14	463 31
JEWELRY, SILVERWARE														
Jostens	453 1	450 1	262 1	46 1	139 1	386 1	316 1	88 1	72 1	102 1	77 1	191 1	464 1	465 1
METAL PRODUCTS														
American Can	140 1	101 1	102 3	465 27	159 11	105 1	141 3	159 10	278 17	275 16	265 16	244 19	138 3	226 6
Ampco-Pittsburgh	486 26	435 21	400 21	120 10	331 19	394 17	419 24	384 21	387 22	336 19	291 21	422 24	290 10	330 14
Ball	292 11	341 15	230 10	214 14	151 10	311 13	306 14	195 14	149 7	148 6	74 2	147 10	302 12	193 4
Barnes Group	480 24	475 24	371 19	418 25	321 18	450 23	434 26	312 16	256 16	261 15	204 12	205 12	404 21	284 10
Butler Manufacturing	467 22	477 25	374 20	74 5	8 2	432 21	459 27	334 19	315 20	299 17	288 20	198 11	321 15	166 2
CBI Industries	228 5	242 6	435 26	9 2	—	246 8	254 10	—	—	—	419 25	435 25	210 5	172 3
Ceco Industries	413 16	468 23	367 18	217 15	70 6	426 20	337 15	333 18	291 18	245 14	217 13	127 8	470 26	379 22
Chromalloy American	330 13	336 14	404 23	431 26	—	340 14	250 8	402 23	399 23	—	335 23	86 5	399 19	408 25
Crane	294 12	334 13	342 17	19 3	333 20	419 19	263 12	360 20	246 15	320 18	312 22	215 15	375 18	298 12
Crown Cork & Seal	238 6	287 8	194 7	156 13	88 8	235 6	245 7	180 12	189 10	166 7	171 9	12 3	309 13	202 5
Easco	445 20	493 27	437 27	410 24	—	476 27	425 25	—	—	—	357 24	381 22	478 27	249 7
Emhart	211 3	201 4	170 5	350 23	251 16	215 4	125 2	198 15	194 11	199 9	157 7	330 21	417 23	475 27
Gillette	158 2	133 2	97 2	229 16	212 13	163 3	116 1	99 3	90 3	217 11	269 17	212 14	262 8	393 23
Harsco	264 8	294 9	207 8	84 7	74 7	258 9	257 11	184 13	201 12	237 13	155 6	116 6	311 14	252 8
Hillenbrand Industries	461 21	374 16	284 13	234 17	268 17	352 15	365 18	108 5	205 13	172 8	122 4	207 13	248 7	405 24
Household Manufacturing	337 14	325 12	233 11	329 22	31 3	288 11	276 13	145 8	207 14	—	—	—	340 17	350 16
Illinois Tool Works	419 18	377 17	291 14	320 21	338 21	287 10	353 17	153 9	308 19	218 12	218 14	224 16	300 11	361 19

INDUSTRY Companies are identified in the main directory by industry code. See page 232 for key.	SALES	ASSETS	NET INCOME	SALES CHANGE FROM '84	PROFITS CHANGE FROM '84	STOCKHOLDERS' EQUITY	NUMBER OF EMPLOYEES	NET INCOME AS PERCENT OF:		10-YR. EARNINGS PER SHARE GROWTH	TOTAL RETURN TO INVESTORS:		ASSETS PER EMPL.	SALES PER EMPL.
								SALES	STOCKHOLDERS' EQUITY		10-YR. AVG.	1985		
Masco	284 10	171 3	93 1	95 8	44 4	140 2	225 6	13 1	108 5	100 3	221 15	123 7	119 1	357 17
Masco Industries	417 17	316 11	402 22	138 11	376 22	458 25	388 20	393 22	379 21	—	—	6 2	135 2	270 9
Parker Hannifin	242 7	266 7	163 4	109 9	105 9	223 5	153 4	136 7	168 9	208 10	188 11	237 18	448 24	456 26
Philips Industries	484 25	486 26	322 16	81 6	65 5	455 24	394 21	161 11	45 2	—	22 1	78 4	459 25	374 21
Robertson (H.H.)	412 15	432 20	428 25	254 19	—	440 22	341 16	—	—	—	270 18	454 26	411 22	369 20
Snap-on Tools	421 19	409 19	211 9	143 12	215 14	309 12	380 19	35 2	93 4	89 2	282 19	247 20	283 9	295 11
Stanadyne	472 23	446 22	294 15	266 20	246 15	381 16	415 23	113 6	162 8	118 5	130 5	142 9	335 16	311 13
Stanley Works	275 9	303 10	177 6	243 18	167 12	244 7	222 5	107 4	147 6	111 4	169 8	226 17	402 20	360 18
Triangle Industries	216 4	206 5	267 12	2 1	2 1	460 26	252 9	332 17	11 1	58 1	83 3	1 1	139 4	147 1
Trinity Industries	490 27	402 18	413 24	54 4	—	413 18	410 22	—	—	—	180 10	418 23	226 6	347 15
METALS														
Alumax	196 9	184 12	202 2	396 12	345 10	176 11	235 11	272 8	303 7	—	—	—	124 10	140 7
Aluminum Co. of America	69 2	44 1	422 15	466 21	—	38 1	85 3	—	—	—	313 9	360 12	79 6	169 13
Amsted Industries	384 20	369 20	299 9	110 4	87 4	293 15	309 13	222 6	316 9	302 4	253 7	288 7	343 22	376 24
Armco	92 4	95 5	221 5	457 19	—	123 6	123 5	368 13	356 12	332 7	426 19	406 16	175 13	157 9
Asarco	281 14	179 11	442 17	472 22	—	207 13	324 15	—	—	—	370 12	402 15	49 4	137 5
Bethlehem Steel	70 3	65 3	462 20	408 13	—	136 8	75 2	—	—	—	427 20	417 17	177 14	216 17
Carpenter Technology	435 23	350 18	318 12	215 8	308 8	314 18	435 22	205 4	312 8	286 3	216 5	426 18	123 9	210 15
Cyclops	249 12	373 21	311 11	150 5	42 1	376 19	310 14	343 12	222 4	—	116 3	130 4	348 23	115 3
Farley/Northwest Ind.	230 11	169 10	—	181 7	—	—	183 8	—	—	—	—	—	196 15	365 23
Handy & Harman	436 24	403 23	389 14	464 20	350 11	438 21	398 20	374 14	359 13	317 6	154 4	314 10	239 17	281 19
Inland Steel	126 6	126 8	460 18	424 15	—	143 9	149 7	—	—	—	421 16	394 14	170 12	167 12
Interlake	349 17	314 17	307 10	454 18	295 6	303 17	303 12	275 10	300 6	304 5	251 6	262 6	256 18	313 21
Kaiser Aluminum & Chem.	143 7	97 6	461 19	495 23	—	121 5	231 10	—	—	—	384 13	295 8	41 3	73 1
LTV	43 1	45 2	478 23	73 2	—	205 12	54 1	—	—	—	425 18	449 19	164 11	133 4
Marmon Group	226 10	267 16	223 6	383 11	300 7	285 14	195 9	270 7	240 5	—	—	—	395 24	312 20
NVF	261 13	264 15	—	335 9	—	—	—	—	—	—	418 15	452 20	—	—
Newmont Mining	375 19	156 9	430 16	413 14	—	96 3	369 17	—	—	—	300 8	177 5	30 1	231 18
Nucor	372 18	363 19	212 4	83 3	63 3	300 16	458 23	69 1	122 2	38 1	19 1	50 1	96 7	75 2
Penn Central	151 8	109 7	135 1	357 10	324 9	72 2	120 4	207 5	344 10	—	343 11	355 11	208 16	362 22
Phelps Dodge	340 16	187 13	297 8	453 17	—	166 10	374 18	274 9	386 14	333 8	422 17	55 2	37 2	146 8
Revere Copper & Brass	488 25	469 25	369 13	496 24	—	469 22	466 24	296 11	146 3	—	393 14	374 13	257 19	162 11
Reynolds Metals	113 5	84 4	469 21	444 16	—	117 4	134 6	—	—	—	319 10	307 9	114 8	183 14
Weirton Steel	282 15	379 22	205 3	177 6	208 5	134 7	326 16	154 3	346 11	—	—	—	339 21	138 6
Wheeling-Pittsburgh Steel	392 22	250 14	470 22	500 25	—	482 23	392 19	—	—	—	433 21	455 21	61 5	212 16
Worthington Industries	385 21	429 24	260 7	44 1	53 2	383 20	417 21	146 2	75 1	55 2	30 2	129 3	282 20	158 10
MINING, CRUDE-OIL PRODUCTION														
AMAX	183 3	86 4	477 13	485 12	—	186 5	278 3	—	—	—	431 11	432 13	29 7	80 9
Freeport-McMoRan	377 10	159 6	133 5	479 11	101 4	188 6	440 7	7 2	148 4	143 3	211 5	352 8	22 4	111 11
Inspiration Resources	289 7	313 12	468 12	34 1	—	338 11	379 5	—	—	—	—	351 7	144 13	84 10
Int'l Minerals & Chemical	224 5	166 7	126 4	219 5	37 1	124 4	314 4	81 4	250 7	306 8	348 9	404 10	46 10	79 8
Louisiana Land	273 6	210 8	375 10	456 10	378 10	226 7	494 13	382 11	385 11	339 9	340 8	390 9	1 1	4 1
Mitchell Energy	331 9	158 5	272 8	359 7	346 8	232 8	465 10	239 8	332 8	155 4	95 2	431 12	12 3	54 6
NERCO	450 13	301 11	246 7	92 2	288 6	325 10	485 12	61 3	170 5	—	—	316 6	27 6	52 5
North American Coal	443 12	247 9	281 9	97 3	72 2	417 13	455 8	118 6	54 1	76 2	195 4	118 1	36 9	159 13
Occidental Petroleum	19 1	26 2	18 1	416 9	84 3	39 2	79 1	185 7	145 3	232 6	229 6	299 5	34 8	39 3
Standard Oil	24 2	16 1	55 2	118 4	370 9	14 1	80 2	322 9	369 10	246 7	263 7	265 3	24 5	44 4
Texas Oil & Gas	220 4	79 3	62 3	487 13	290 7	74 3	463 9	4 1	139 2	36 1	39 1	427 11	2 2	24 2
Vulcan Materials	309 8	295 10	195 6	338 6	247 5	236 9	382 6	84 5	187 6	174 5	115 3	180 2	115 12	114 12
Westmoreland Coal	427 11	421 13	378 11	367 8	—	410 12	479 11	353 10	348 9	341 10	429 10	278 4	68 11	59 7
MOTOR VEHICLES AND PARTS														
American Motors	98 4	163 7	453 15	392 13	—	427 15	157 7	—	—	—	432 14	438 15	221 4	88 4
Arvin Industries	355 14	439 16	271 12	226 7	99 1	357 12	264 12	210 9	172 7	56 2	120 3	97 2	476 15	423 15

INDUSTRY Companies are identified in the main directory by industry code. See page 232 for key.	SALES	ASSETS	NET INCOME	SALES CHANGE FROM '84	PROFITS CHANGE FROM '84	STOCK-HOLDERS' EQUITY	NUMBER OF EM-PLOYEES	NET INCOME AS PERCENT OF:		10-YR. EARN-INGS PER SHARE GROWTH	TOTAL RETURN TO INVESTORS:		ASSETS PER EMPL.	SALES PER EMPL.
								SALES	STOCK-HOLDERS' EQUITY		10-YR. AVG.	1985		
Borg-Warner	101 5	110 4	89 4	300 8	260 6	79 4	35 4	200 6	252 12	112 5	126 4	301 6	479 16	492 16
Chrysler	13 3	23 3	8 3	155 5	316 11	30 3	21 3	71 1	5 1	—	159 6	102 3	148 3	74 3
Colt Industries	203 11	233 9	114 6	355 11	183 3	284 9	177 8	76 2	10 2	151 7	81 2	245 5	337 10	302 11
Dana	103 6	134 5	92 5	224 6	263 8	111 5	94 5	206 8	179 8	209 10	315 12	372 13	338 11	279 8
Echlin	365 15	360 12	241 9	106 4	186 4	332 10	286 13	126 3	141 5	108 3	298 11	302 7	376 12	394 13
Ford Motor	4 2	8 2	4 2	316 10	261 7	12 2	3 2	187 5	56 3	30 1	246 9	193 4	233 6	135 6
Fruehauf	150 8	173 8	196 8	441 14	277 9	213 7	137 6	300 13	242 11	177 9	281 10	322 8	314 9	286 9
General Motors	1 1	2 1	3 1	82 2	256 5	2 1	1 1	227 10	186 9	157 8	347 13	411 14	251 7	201 7
International Harvester	104 7	135 6	473 16	493 16	—	491 16	206 9	—	—	—	434 15	365 12	98 1	62 1
Mack Trucks	178 9	249 10	439 14	365 12	—	234 8	255 11	—	—	—	—	446 16	228 5	103 5
PACCAR	194 10	251 11	188 7	480 15	332 12	190 6	315 15	241 12	267 13	109 4	56 1	363 11	133 2	64 2
Sealed Power	408 16	382 13	296 13	33 1	311 10	355 11	354 16	186 4	232 10	149 6	135 5	349 10	308 8	340 12
Sheller-Globe	328 13	389 14	269 11	103 3	181 2	361 13	253 10	234 11	154 6	221 11	222 8	328 9	451 14	406 14
Smith (A.O.)	320 12	394 15	255 10	304 9	—	363 14	293 14	203 7	100 4	—	194 7	35 1	424 13	300 10
PETROLEUM REFINING														
Agway	95 18	219 23	—	346 13	—	320 26	192 14	—	—	—	—	—	281 31	63 28
Amerada Hess	48 14	46 14	465 26	434 23	—	63 11	322 19	—	—	—	203 7	319 18	5 3	7 5
American Petrofina	157 21	172 21	418 24	94 5	—	210 20	467 26	—	—	—	334 19	443 25	16 12	10 8
Amoco	11 5	11 6	6 2	310 9	250 11	13 6	64 7	87 2	104 4	161 3	224 9	266 14	19 14	18 14
Ashland Oil	46 13	78 16	106 12	395 18	—	151 17	110 10	345 17	208 8	254 12	213 8	75 7	141 27	60 26
Atlantic Richfield	12 6	14 8	464 25	455 26	—	20 9	118 11	—	—	—	267 13	112 9	8 6	9 7
Chevron	7 4	6 3	10 4	12 1	207 7	5 2	51 5	252 10	272 14	214 8	237 11	223 11	9 7	12 9
Coastal	50 15	36 13	108 13	70 3	46 6	180 18	210 15	338 16	209 9	207 7	44 1	9 3	17 13	27 17
Crown Central Petroleum	240 26	396 30	394 23	474 28	4 2	396 28	400 24	401 23	382 21	326 18	235 10	64 5	232 30	53 25
Diamond Shamrock	93 17	67 15	476 27	448 24	—	76 12	262 16	—	—	—	428 25	434 24	26 19	38 22
Exxon	2 1	1 1	2 1	402 19	258 12	3 1	12 2	144 3	111 5	196 4	272 14	231 12	20 15	14 11
Farmers Union Central	250 28	322 26	—	433 22	—	324 27	475 27	—	—	—	—	—	39 23	22 16
Farmland Industries	87 16	228 24	—	484 29	—	263 22	343 21	—	—	—	—	—	67 26	16 13
Kerr-McGee	117 19	83 17	116 14	415 21	16 5	77 13	319 17	230 7	305 16	287 17	407 23	235 13	23 17	32 18
Mapco	192 24	190 22	143 16	451 25	276 16	271 23	424 25	150 4	37 2	259 14	390 22	104 8	32 21	36 20
Mobil	3 2	4 2	14 6	337 12	284 17	8 4	8 1	346 18	321 18	267 15	254 12	321 19	38 22	40 23
Murphy Oil	169 23	121 19	173 17	297 8	274 15	133 16	399 23	256 11	306 17	206 6	146 3	309 16	21 16	33 19
National Coop. Refinery	339 31	427 31	—	39 2	—	415 29	497 31	—	—	—	—	—	6 4	2 2
Pacific Resources	252 29	371 29	338 21	488 30	1 1	422 30	493 30	369 19	230 11	117 2	161 5	20 4	11 9	1 1
Pennzoil	167 22	94 18	130 15	473 27	259 13	183 19	321 18	166 5	213 10	281 16	100 2	66 6	25 18	50 24
Phillips Petroleum	17 9	20 10	41 8	312 10	341 18	82 14	144 12	306 13	32 1	222 9	376 20	428 23	13 10	13 10
Quaker State Oil Refining	310 30	339 27	240 19	212 6	12 4	317 25	390 22	189 6	164 6	247 11	311 16	154 10	169 28	108 30
Shell Oil	14 7	9 5	7 3	363 15	240 9	7 3	103 9	62 1	233 12	—	—	—	4 2	15 12
Sun	20 11	22 11	30 7	403 20	225 8	21 10	96 8	245 9	269 13	198 5	174 6	311 17	28 20	37 21
Tenneco	18 10	13 7	91 11	246 7	366 20	19 8	20 3	375 21	384 22	338 20	324 17	338 20	60 25	144 31
Texaco	6 3	7 4	12 5	371 16	7 3	10 5	59 6	307 14	285 15	236 10	333 18	413 22	7 5	8 6
Tosco	234 25	347 28	381 22	491 31	—	490 31	492 29	389 22	—	—	382 21	2 1	10 8	3 3
U.S. Steel	15 8	15 9	43 9	313 11	273 14	17 7	38 4	329 15	345 20	327 19	420 24	370 21	44 24	61 27
Unocal	31 12	27 12	50 10	349 14	348 19	85 15	174 13	285 12	61 3	255 13	279 15	447 26	15 11	20 15
Valero Energy	144 20	164 20	277 20	79 4	—	253 21	482 28	372 20	329 19	—	—	7 2	3 1	5 4
Witco	243 27	297 25	218 18	380 17	249 10	283 24	329 20	238 8	182 7	110 1	148 4	269 15	190 29	86 29
PHARMACEUTICALS														
Abbott Laboratories	116 6	89 8	37 8	160 4	116 4	70 9	105 6	16 6	31 2	46 2	112 1	62 4	192 12	288 13
American Home Products	79 2	92 9	17 1	376 16	182 11	60 7	66 3	8 3	14 1	145 7	305 10	202 12	297 16	276 11
Baxter Travenol	160 10	41 1	115 12	24 1	6 1	46 2	50 2	133 16	361 15	189 11	379 14	259 15	162 9	496 18
Bristol-Myers	84 3	82 7	29 5	200 7	137 7	54 5	102 5	20 7	47 4	113 3	201 4	209 13	181 10	184 2
Johnson & Johnson	59 1	58 2	21 2	231 9	95 2	36 1	42 1	41 12	85 8	130 5	356 12	111 7	315 18	339 16
Lilly (Eli)	119 7	76 5	31 6	220 8	179 10	57 6	133 10	5 1	48 5	159 9	290 8	34 2	105 2	207 3
Merck	110 5	62 3	28 4	342 14	160 8	50 4	121 9	9 4	57 6	178 10	317 11	100 6	77 1	217 5

INDUSTRY Companies are identified in the main directory by industry code. See page 232 for key.	**SALES**	**ASSETS**	**NET INCOME**	**SALES CHANGE FROM '84**	**PROFITS CHANGE FROM '84**	**STOCK-HOLDERS' EQUITY**	**NUMBER OF EMPLOYEES**	**NET INCOME AS PERCENT OF:**		**10-YR. EARNINGS PER SHARE GROWTH**	**TOTAL RETURN TO INVESTORS:**		**ASSETS PER EMPL.**	**SALES PER EMPL.**
								SALES	**STOCK-HOLDERS' EQUITY**		**10-YR. AVG.**	**1985**		
Miles Laboratories	279 16	269 15	332 17	279 12	309 16	243 15	266 15	355 17	368 16	—	—	—	234 13	257 7
Pfizer	99 4	70 4	24 3	242 10	126 6	48 3	88 4	12 5	63 7	122 4	196 3	258 14	157 7	259 8
Richardson-Vicks	271 15	277 16	190 15	399 18	211 13	252 16	274 16	127 15	160 11	241 13	—	—	235 14	224 6
Robins (A.H.)	382 17	319 17	181 14	112 2	—	488 18	384 17	27 9	—	140 6	398 16	457 16	150 5	211 4
Rorer Group	432 18	410 18	268 16	182 6	272 14	341 17	468 18	103 13	178 12	301 16	250 6	128 9	118 3	104 1
Schering-Plough	189 13	116 10	85 11	267 11	165 9	89 10	152 12	36 10	199 13	250 14	385 15	56 3	142 4	353 17
SmithKline Beckman	121 8	81 6	32 7	130 3	198 12	62 8	109 8	6 2	42 3	45 1	152 2	114 8	158 8	275 10
Squibb	180 12	130 11	72 9	161 5	121 5	91 11	150 11	24 8	150 10	220 12	273 7	92 5	183 11	336 15
Sterling Drug	202 14	189 14	136 13	344 15	296 15	149 13	166 13	125 14	231 14	264 15	293 9	175 11	270 15	335 14
Upjohn	176 11	138 12	76 10	387 17	108 3	103 12	171 14	39 11	144 9	152 8	212 5	15 1	152 6	260 9
Warner-Lambert	125 9	141 13	471 18	305 13	—	165 14	107 7	—	—	—	361 13	139 10	301 17	285 12
PUBLISHING, PRINTING														
American Greetings	327 12	309 13	186 13	102 4	79 5	277 11	182 5	64 10	98 12	49 9	72 9	359 19	456 19	489 19
Capital Cities	306 11	168 5	109 6	153 11	219 16	167 6	332 12	14 1	135 17	40 6	55 6	157 11	43 1	175 7
Commerce Clearing House	492 18	428 18	244 16	140 9	146 10	437 19	386 16	38 7	9 1	47 8	65 8	95 6	325 15	401 16
Deluxe Check Printers	368 14	378 16	142 12	107 6	100 7	301 12	244 9	17 2	17 3	20 4	75 10	58 2	449 18	471 18
Donnelley (R.R.) & Sons	181 4	194 6	103 4	104 5	149 12	164 5	181 4	83 13	114 13	86 14	98 14	190 13	238 11	246 8
Dow Jones	303 10	239 10	113 7	175 13	171 13	218 9	363 14	18 3	39 5	67 10	79 11	317 17	66 2	124 4
Gannett	173 3	144 4	66 1	139 8	132 9	104 1	127 2	21 4	62 6	97 15	175 17	186 12	260 12	420 17
Harcourt Brace Jovanovich	356 13	298 12	231 14	80 2	35 1	321 14	277 10	119 17	117 14	165 17	82 12	51 1	278 13	395 15
Knight-Ridder Newspapers	213 6	212 7	122 8	247 19	237 17	194 8	162 3	72 12	74 8	78 12	139 16	152 10	341 16	386 14
Macmillan	393 15	357 15	242 15	26 1	50 2	358 17	333 13	95 15	84 11	9 1	15 1	59 3	288 14	346 13
McGraw-Hill	237 7	230 9	104 5	196 15	196 14	178 7	224 8	37 6	77 9	81 13	61 7	318 18	220 9	256 10
Media General	428 16	323 14	285 18	205 17	279 19	322 15	406 17	141 19	254 19	188 18	123 15	236 16	131 8	251 9
Meredith	477 17	392 17	249 17	210 18	147 11	342 16	474 19	47 8	131 16	41 7	16 2	230 15	73 3	113 3
New York Times	248 8	227 8	128 10	93 3	113 8	221 10	283 11	56 9	64 7	29 5	34 5	206 14	129 7	153 5
Standard Register	495 19	478 19	288 19	187 14	68 4	411 18	442 18	86 14	82 10	14 3	25 4	69 5	381 17	277 11
Time Inc.	114 1	104 1	79 3	121 7	241 18	108 2	184 6	128 18	118 15	160 16	197 18	115 8	75 5	89 1
Times Mirror	135 2	118 2	70 2	197 16	200 15	141 3	124 1	65 11	33 4	69 11	90 13	126 9	223 10	291 12
Tribune	187 5	131 3	125 9	168 12	90 6	157 4	220 7	110 16	183 18	—	—	61 4	74 4	168 6
Washington Post	296 9	284 11	129 11	141 10	55 3	306 13	377 15	30 5	12 2	13 2	18 3	106 7	106 6	99 2
RUBBER PRODUCTS														
Armstrong Rubber	367 7	359 6	351 6	78 2	326 9	362 6	331 7	335 7	331 8	150 6	151 6	429 11	295 5	292 7
Carlisle	474 11	452 9	320 4	449 12	303 8	388 7	438 12	172 2	221 3	16 1	35 1	382 10	323 6	262 6
Cooper Tire & Rubber	455 10	462 10	337 5	423 10	301 7	408 9	432 11	260 4	259 5	115 4	45 2	326 9	356 7	243 5
Dayco	333 6	398 8	358 7	325 6	238 5	405 8	288 6	358 9	293 7	282 9	286 8	254 7	430 9	315 8
Dorsey	451 9	491 12	376 9	278 5	62 2	470 11	385 8	341 8	204 2	103 3	84 3	46 2	480 12	333 9
Firestone Tire & Rubber	102 2	128 2	401 10	440 11	383 10	115 2	58 2	406 10	401 9	349 10	381 11	125 4	437 10	431 12
GenCorp	134 4	157 4	182 2	125 3	3 1	144 3	136 3	316 5	—	248 8	125 4	8 1	265 4	225 3
Goodrich (B.F.)	123 3	148 3	472 11	404 9	—	195 4	138 4	—	—	—	296 9	216 5	231 2	185 1
Goodyear Tire & Rubber	35 1	39 1	42 1	386 7	213 4	34 1	14 1	224 3	229 4	233 7	329 10	228 6	406 8	412 11
Lancaster Colony	496 12	473 11	373 8	216 4	281 6	449 10	393 9	318 6	282 6	121 5	164 7	298 8	439 11	396 10
Rubbermaid	397 8	397 7	217 3	61 1	86 3	323 5	409 10	53 1	76 1	70 2	128 5	83 3	218 1	187 2
Uniroyal	175 5	202 5	—	394 8	—	—	185 5	—	—	—	—	—	246 3	227 4
SCIENTIFIC AND PHOTOGRAPHIC EQUIPMENT														
Ametek	464 15	423 15	275 13	340 13	286 11	374 14	367 15	92 5	138 5	179 8	111 3	300 10	357 11	398 9
Bard (C.R.)	482 16	437 16	253 11	114 2	97 6	353 12	376 16	46 2	123 4	92 3	158 4	13 1	355 10	414 10
Bausch & Lomb	418 12	349 11	200 8	411 15	56 4	286 10	342 13	23 1	121 3	126 5	186 5	220 5	241 4	385 8
Becton Dickinson	286 10	234 7	157 6	294 10	49 3	200 7	203 8	70 4	202 9	202 9	358 12	72 3	289 6	440 14
Bell & Howell	371 11	330 10	286 14	192 7	226 9	364 13	272 11	217 11	185 7	—	249 6	287 8	352 9	436 13
EG&G	283 9	416 13	220 9	171 6	187 8	384 15	154 5	181 9	24 1	32 1	43 1	251 6	497 16	487 16
Eastman Kodak	33 1	24 1	49 3	328 12	360 14	15 1	15 1	281 12	355 14	312 13	416 16	342 12	204 3	356 5
Foxboro	429 13	388 12	429 16	122 3	—	348 11	312 12	—	—	—	322 10	425 16	379 13	447 15

INDUSTRY Companies are identified in the main directory by industry code. See page 232 for key.	SALES	ASSETS	NET INCOME	SALES CHANGE FROM '84	PROFITS CHANGE FROM '84	STOCK-HOLDERS' EQUITY	NUMBER OF EM-PLOYEES	NET INCOME AS PERCENT OF:		10-YR. EARN-INGS PER SHARE GROWTH	TOTAL RETURN TO INVESTORS:		ASSETS PER EMPL.	SALES PER EMPL.
								SALES	STOCK-HOLDERS' EQUITY		10-YR. AVG.	1985		
General Signal	**208** 5	**205** 5	**235** 10	**315** 11	**349** 13	**161** 5	**161** 6	**303** 14	**352** 13	**283** 11	**274** 8	**387** 14	**322** 8	**367** 6
Lear Siegler	**159** 4	**204** 4	**146** 4	**41** 1	**102** 7	**206** 8	**128** 4	**214** 10	**142** 6	**75** 2	**47** 2	**323** 11	**415** 15	**373** 7
Minnesota Mining & Mfg.	**47** 3	**42** 3	**19** 1	**289** 9	**266** 10	**32** 3	**36** 3	**54** 3	**113** 2	**176** 7	**336** 11	**292** 9	**263** 5	**309** 2
Perkin-Elmer	**256** 7	**241** 9	**167** 7	**133** 4	**80** 5	**212** 9	**215** 9	**114** 6	**192** 8	**116** 4	**256** 7	**274** 7	**291** 7	**348** 4
Polaroid	**257** 8	**215** 6	**266** 12	**286** 8	**39** 2	**156** 4	**241** 10	**293** 13	**367** 15	**308** 12	**368** 14	**74** 4	**174** 1	**269** 1
Sybron	**454** 14	**422** 14	**377** 15	**420** 16	—	**402** 16	**351** 14	**340** 15	**351** 12	**325** 14	**360** 13	**345** 13	**386** 14	**419** 11
Tektronix	**245** 6	**235** 8	**155** 5	**166** 5	**297** 12	**171** 6	**173** 7	**116** 7	**258** 10	**153** 6	**309** 9	**396** 15	**358** 12	**432** 12
Xerox	**40** 2	**31** 2	**35** 2	**341** 14	**26** 1	**27** 2	**24** 2	**152** 8	**279** 11	**252** 10	**373** 15	**60** 2	**200** 2	**332** 3
SOAPS, COSMETICS														
Avon Products	**133** 3	**145** 5	**440** 8	**381** 9	—	**153** 2	**93** 3	—	—	—	**397** 8	**178** 6	**359** 8	**378** 9
Chesebrough-Pond's	**136** 4	**106** 2	**166** 4	**11** 1	**315** 6	**191** 4	**140** 4	**297** 5	**238** 6	**243** 5	**377** 7	**201** 7	**147** 5	**218** 6
Clorox	**298** 7	**304** 6	**161** 3	**163** 3	**168** 3	**251** 5	**402** 7	**60** 2	**92** 1	**114** 1	**143** 1	**45** 1	**107** 4	**77** 3
Colgate-Palmolive	**73** 2	**112** 3	**137** 2	**280** 7	**30** 1	**158** 3	**83** 2	**331** 6	**223** 4	**303** 6	**375** 6	**159** 5	**307** 7	**188** 5
Economics Laboratory	**376** 8	**415** 9	**257** 6	**258** 6	**166** 2	**365** 7	**352** 6	**151** 3	**106** 2	**193** 3	**338** 2	**82** 3	**361** 9	**273** 8
Int'l Flavors & Fragrances	**466** 9	**364** 8	**197** 5	**222** 4	**209** 4	**276** 6	**461** 9	**15** 1	**124** 3	**156** 2	**341** 3	**109** 4	**86** 2	**154** 4
Lever Brothers	**177** 6	**312** 7	**431** 7	**72** 2	—	**392** 8	**430** 8	—	—	—	—	—	**89** 3	**29** 1
Procter & Gamble	**22** 1	**32** 1	**20** 1	**236** 5	**313** 5	**22** 1	**47** 1	**191** 4	**224** 5	**224** 4	**350** 4	**229** 8	**81** 1	**65** 2
Revlon	**154** 5	**142** 4	—	**283** 8	—	—	**158** 5	—	—	—	**374** 5	**63** 2	**179** 6	**238** 7
TEXTILES														
Armstrong World Industries	**219** 3	**245** 3	**145** 1	**189** 6	**162** 5	**184** 2	**169** 4	**124** 2	**181** 3	**133** 3	**304** 8	**160** 4	**403** 5	**366** 3
Burlington Industries	**141** 1	**154** 1	**370** 7	**470** 9	**371** 8	**118** 1	**73** 1	**396** 8	**394** 8	**331** 8	**364** 9	**192** 6	**432** 6	**462** 6
Collins & Aikman	**302** 6	**375** 8	**203** 2	**111** 4	**66** 3	**331** 6	**267** 8	**123** 1	**49** 1	**8** 1	**92** 1	**57** 2	**434** 7	**307** 2
DWG	**301** 5	**280** 5	**392** 8	**5** 1	**24** 2	**453** 10	**207** 6	**390** 7	**354** 6	**291** 7	**285** 7	**414** 10	**391** 4	**461** 5
Fieldcrest Mills	**425** 9	**440** 9	**368** 6	**277** 7	**10** 1	**403** 7	**282** 9	**328** 5	**323** 4	**274** 6	**230** 4	**304** 9	**468** 10	**479** 10
Shaw Industries	**459** 10	**482** 10	**315** 4	**85** 3	**133** 4	**445** 9	**450** 10	**173** 3	**52** 2	**60** 2	**96** 2	**131** 3	**388** 3	**199** 1
Springs Industries	**307** 7	**256** 4	**366** 5	**184** 5	**359** 7	**270** 5	**202** 5	**371** 6	**376** 7	**215** 4	**138** 3	**174** 5	**360** 1	**472** 8
Stevens (J.P.)	**201** 2	**237** 2	**420** 9	**476** 10	—	**245** 3	**135** 2	—	—	—	**264** 6	**23** 1	**441** 8	**439** 4
United Merchants & Mfrs.	**361** 8	**315** 7	**424** 10	**18** 2	—	**428** 8	**243** 7	—	—	—	**392** 10	**260** 8	**380** 2	**466** 7
West Point-Pepperell	**276** 4	**302** 6	**305** 3	**458** 8	**343** 6	**264** 4	**168** 3	**323** 4	**341** 5	**262** 5	**239** 5	**242** 7	**463** 9	**477** 9
TOBACCO														
American Brands	**78** 3	**61** 3	**40** 3	**230** 4	**201** 3	**55** 3	**41** 3	**48** 3	**105** 4	**171** 3	**170** 2	**366** 3	**329** 4	**468** 4
Philip Morris	**27** 2	**17** 1	**11** 1	**49** 1	**45** 1	**25** 2	**19** 2	**33** 2	**26** 2	**50** 1	**220** 3	**329** 1	**83** 1	**247** 2
Reynolds (R.J.) Industries	**23** 1	**18** 2	**15** 2	**90** 2	**278** 4	**23** 1	**10** 1	**80** 4	**78** 3	**184** 4	**240** 4	**336** 2	**154** 3	**310** 3
United States Tobacco	**476** 4	**405** 4	**152** 4	**159** 3	**144** 2	**312** 4	**460** 4	**1** 1	**18** 1	**62** 2	**108** 1	**415** 4	**130** 2	**173** 1
TOYS, SPORTING GOODS														
Coleco Industries	**364** 4	**425** 4	**164** 2	**331** 4	—	**459** 4	**443** 4	**28** 1	**1** 1	**1** 1	**51** 2	**183** 2	**215** 3	**93** 1
Hasbro	**272** 2	**290** 2	**149** 1	**7** 2	**21** 1	**282** 1	**360** 3	**63** 2	**38** 3	**5** 2	**1** 1	**70** 1	**137** 1	**94** 2
Mattel	**300** 3	**317** 3	**175** 3	**56** 3	**154** 3	**387** 3	**175** 1	**78** 3	**4** 2	—	—	**273** 3	**466** 4	**483** 4
Minstar	**267** 1	**222** 1	**293** 4	**4** 1	**58** 2	**367** 2	**239** 2	**317** 4	**195** 4	—	**119** 3	**283** 4	**186** 2	**290** 3
TRANSPORTATION EQUIPMENT														
Fleetwood Enterprises	**260** 2	**426** 3	**224** 1	**463** 2	**270** 2	**350** 2	**289** 2	**219** 2	**53** 1	**18** 1	**209** 3	**412** 2	**453** 3	**174** 2
Ogden	**197** 1	**291** 1	**425** 4	**471** 3	—	**319** 1	**90** 1	—	—	—	**178** 2	**264** 1	**494** 4	**490** 4
Todd Shipyards	**462** 3	**420** 2	**336** 2	**489** 4	**262** 1	**430** 3	**416** 3	**251** 3	**197** 3	—	**89** 1	**416** 3	**266** 2	**294** 3
Winnebago Industries	**500** 4	**489** 4	**339** 3	**260** 1	**325** 3	**435** 4	**481** 4	**212** 1	**193** 2	—	**326** 4	**433** 4	**214** 1	**76** 1

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American Brands	78
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SALES

All companies on the list must have derived more than 50% of their sales from manufacturing and/or mining. Sales include rental and other revenues but exclude dividends, interest, and other non-operating revenues. Sales of subsidiaries are included if they are consolidated. Sales from discontinued operations are included if these figures are published. If the sales are at least 10% higher for this reason, there is a symbol (¶) next to the sales figure. All figures are for the year ending December 31, 1985, unless otherwise noted. Sales figures do not include excise taxes collected by the manufacturer, and so the figures for some corporations—most of which sell gasoline, liquor, or tobacco—may be lower than those published by the corporations themselves. If they are at least 5% lower for this reason, there is an asterisk (*) next to the sales figures.

ASSETS

Assets shown are those at the company's fiscal year-end.

NET INCOME

Net income is shown after taxes and after extraordinary credits or charges if any are shown on the income statement. A double asterisk (**) signifies an extraordinary credit reflecting at least 10% of the net income shown, a double dagger (‡) an extraordinary charge of at least 10%. Figures in parentheses indicate a loss.

STOCKHOLDERS' EQUITY

Stockholders' equity is the sum of capital stock, surplus, and retained earnings at the company's year-end. Redeemable preferred stock is excluded if its redemption is either mandatory or outside the control of the company, except in the case of cooperatives. For purposes of calculating "net income as percent of stockholders' equity," any dividends paid on redeemable preferred stock, if that stock's redemption is either mandatory or outside the control of the company, have been subtracted from the net income figure.

EMPLOYEES

The figure shown is a year-end total except when it is followed by a dagger (†), in which case it is an average for the year.

EARNINGS PER SHARE

For all companies the figures shown are the primary earnings per share that appear on the company's income statement. These figures are based on a weighted average of the number of common shares and common stock equivalents outstanding during the year. Per-share earnings for 1984 and 1985 are adjusted for stock splits and stock dividends. They are not restated for mergers, acquisitions, or accounting changes made after 1975. A double asterisk (**) signifies an extraordinary credit reflecting at least 10% of the net income shown, a double dagger (‡) an extraordinary charge of at least 10%. Results are listed as not available (N.A.) if the companies are cooperatives, joint ventures, or wholly owned subsidiaries of other companies, or if the figures were not published in 1975. The growth rate is the average annual growth, compounded. No growth rate is given if the company had a loss in either 1975 or 1985.

TOTAL RETURN TO INVESTORS

Total return to investors includes both price appreciation and dividend yield to an investor in the company's stock. The figures shown assume sales at the end of 1985 of stock owned at the end of 1975 and 1984. It has been assumed that any proceeds from cash dividends, the sale of rights and warrant offerings, and stock received in spinoffs were reinvested when they were paid. Returns are adjusted for stock splits, stock dividends, recapitalizations, and corporate reorganizations as they occur; however, no effort has been made to reflect the cost of brokerage commissions or of taxes. Results are listed as not available (N.A.) if shares are not publicly traded or are traded on only a limited basis. If companies have more than one class of shares outstanding, only the more widely held and actively traded has been considered.

Total return percentages shown are the returns received by the hypothetical investor described above. The ten-year figures are annual averages, compounded. If corporations were substantially reorganized—e.g., because of mergers—the predecessor companies used in calculating total return are the same as those cited in the footnotes to the earnings-per-share figures.

INDUSTRY CODE

Industry code numbers used in the directory indicate which industry represents the greatest volume of industrial sales for each company. The numbers refer to the industry groups below, which are based on categories established by the U.S. Office of Management and Budget and issued by the Federal Statistical Policy and Standards Office. They are the same industry groups as those shown in the tables beginning on page 202. The median figures in the tables refer only to results of companies in the 500; no attempt has been made to calculate medians in groups with fewer than four companies.

Mining, crude-oil production	10
Food	20
Tobacco	21
Textiles	22
Apparel	23
Furniture	25
Forest products	26
Publishing, printing	27
Chemicals	28
Petroleum refining	29
Rubber products	30
Leather	31
Building materials	32
Metals	33
Metal products	34
Electronics	36
Transportation equipment	37
Scientific and photographic equipment	38
Motor vehicles and parts	40
Aerospace	41
Pharmaceuticals	42
Soaps, cosmetics	43
Computers (includes office equipment)	44
Industrial and farm equipment	45
Jewelry, silverware	46
Toys, sporting goods	47
Beverages	49

Most of the figures in this FORTUNE 500 Directory were prepared by Barbara Hetzer and Christopher Knowlton, who are responsible for the columns reporting on companies' sales, assets, net income, stockholders' equity, and the industry code numbers. Figures on earnings per share and total return to investors were prepared by Claudine Knight.

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MAY 12, 1986

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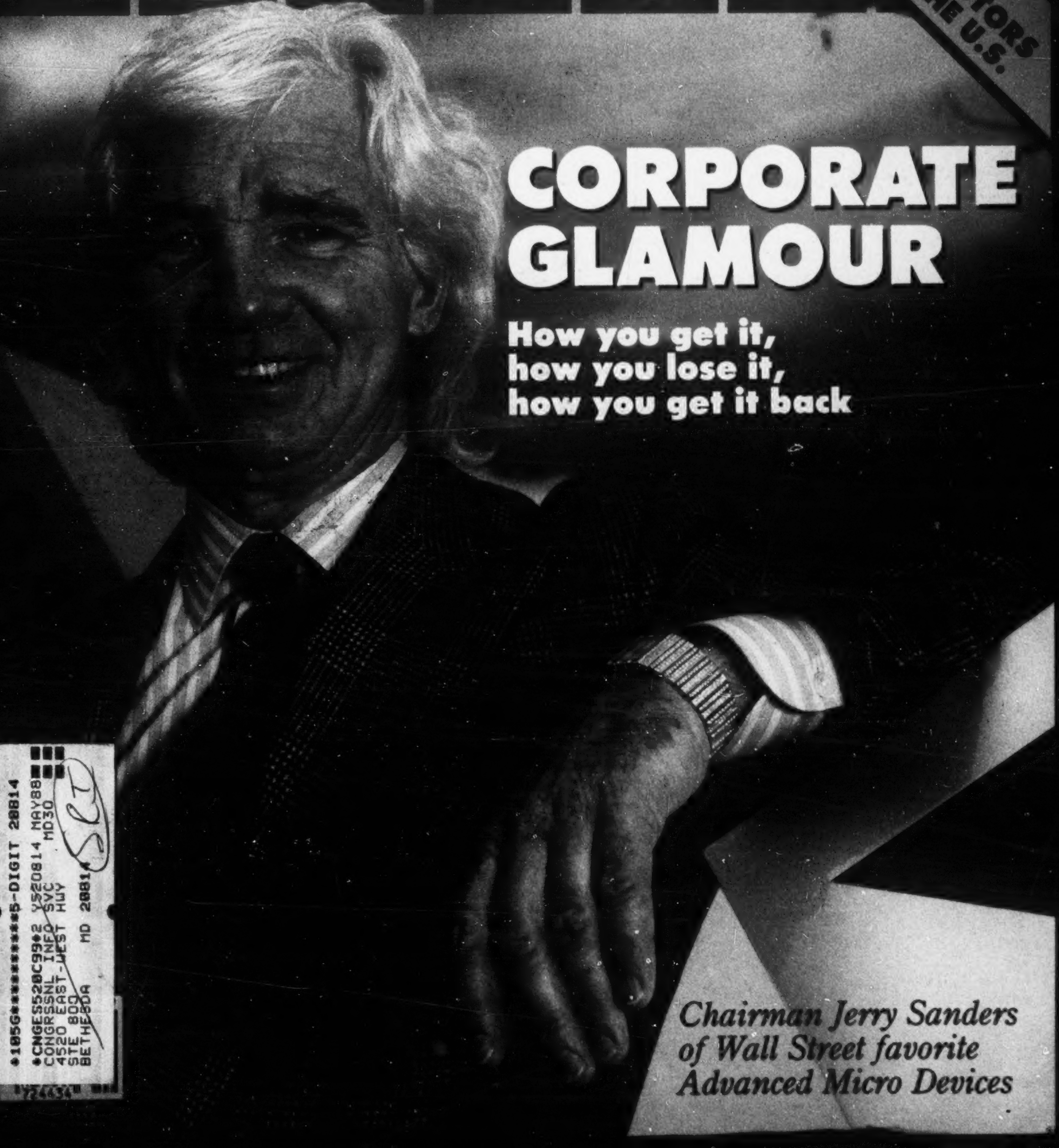
FORTUN

FOREIGN INVESTORS STILL LOVE THE U.S.

WHY



CORPORATE GLAMOUR

How you get it,
how you lose it,
how you get it back

Chairman Jerry Sanders of Wall Street favorite Advanced Micro Devices

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MAY 12, 1986 VOL. 113, NO. 10

FORTUNE
Corporate Performance

FORTUNE
CORPORATE GLAMOUR

For the cover, Bonnie Schiffman photographed a chief executive who has kept his company glamorous for years. See page 18.

MANAGING

Glamour: Getting It—or Getting It Back 18
That ineffable sparkle is worth money to a company. But danger lurks in going after it. *by Anne B. Fisher*

NASA's Challenge: Ending Isolation at the Top 26
The management failure that preceded *Challenger*'s demise can strike any big organization. *by Michael Brody*

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Merv Adelson got rich. Now he wants to win Lorimar-Telepictures the status of a major studio. *by Stratford P. Sherman*

This Builder Wants It All—Without Risk 50
Using a "chicken formula," Mack Pogue is pushing to make Lincoln Properties No. 1 in the U.S. *by Brian O'Reilly*

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Male Modeling Is Coming of Age 62
Men account for a third of U.S. models, double the share 20 years ago. They are well paid. *(A picture portfolio)*

Car Marketers Try the Soft-Sell Approach 71

Dow Chemical: From Napalm to Nice Guy 75

States to Tourists: "Stay Home" 75

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In dispute: the value of CopyTele Inc. Bulls and bears are in a war that is something to behold. *by Peter Petre*

Foreign Investors Still Love the U.S. 93
The dollar's drop has cost them dearly. So why are they still gorging on U.S. stocks and bonds? *by Edward Boyer*

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What the Oil Lobby Really Hopes to Get 97

Treasury's Bank Guru 97

Looking to Tokyo for a Lower Dollar 100

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Sanford Weill, 53, Exp'd Mgr, Gd Refs 102
His audacious bid to run BankAmerica flopped, so he is on the prowl for another company to run. *by Carol J. Loomis*

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A Respite in the Chip Price War 113
The U.S. says Japanese chipmakers have been dumping. But American competitors are not home free. *by Bro Uttal*

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Debate over Seagram's heir, Carbide divests, and more.

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by Duane R. Kullberg

On Your Own Time 145
Hunting big game at sea.
by Jeremy Main

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Books & Ideas 151
Gridlock in the Senate.
by Robert Lubar

brought into the U.S. duty free. That is true, but what may be more useful for travelers to know is that unset—that is, unmounted—precious gems are also not included in the limit. For travelers in the Far East, it is worth noting that unstrung or temporarily strung natural pearls are exempt.

CAROLYN LUCAS
Greeley, Colorado

How Much Is a Life Worth?

The response of Mandell S. Winter Jr. of the New England Mutual Life Insurance Co. with regard to the proper valuation of a human life (Letters, March 31) is ridiculous. He says this can be determined by the value people place on themselves, as reflected in the amount their lives are insured for. In 1983, he notes, the average amount of life insurance per family was only $54,200. Therefore he must conclude that people who do not carry any life insurance believe their lives are worthless. Need more be said?

STEWART M. LEE
Department of Economics and Business Administration, Geneva College
Beaver Falls, Pennsylvania

Incensed (cont'd)

I would like to echo the complaint by Mark I. Wolk (Letters, April 14) about the scented advertisement for Deneuve perfume. The first thing I do when my magazines arrive is tear out any scented advertisements. Unfortunately, it takes some time for the smell to dissipate. Admittedly, FORTUNE has not been as guilty as other publications, but I expect better of FORTUNE.

KATHLEEN M. BEAUCHAMP
San Francisco

The March 17 edition with its scented perfume advertisement was most welcome and just plain nice. To reader Wolk, who threatened cancellation, I say, "Big deal."

K. P. DEERING
Pasadena

Doctrinal Distinction

In Portfolio Talk (Personal Investing, March 17), Leon Cooperman of Goldman Sachs argues that bear markets aren't fatherless children and mentions the Immaculate Conception. Mr. Cooperman certainly isn't the first to confuse that doctrine, which states that the Blessed Virgin Mary was free of original sin from the moment she was conceived, with the Virgin Birth. But until he learns the difference I suggest he go long on stocks and short Mariology.

JAMES W. MAHER
East Northport, New York

Corrections

FORTUNE's Directory of the 500 Largest U.S. Industrial Corporations (April 28) misstated Grumman's net income. The correct figure is $81,535,000, and the company's correct rank in that category is No. 170. Grumman's profits declined 24.8%, so the company did not have the steepest decrease in profits. Intel did, at 99.2%.

In the rankings by stockholders' equity, McDonnell Douglas should have been No. 49 (at $2,634,600,000) and Weirton Steel No. 460 (at $101,312,000).

In "The New Assault on Heart Attacks" (March 31), the desirable ratio of total cholesterol to high-density lipoproteins (HDLs) should have been stated as no higher than 4.5 to 1. ■

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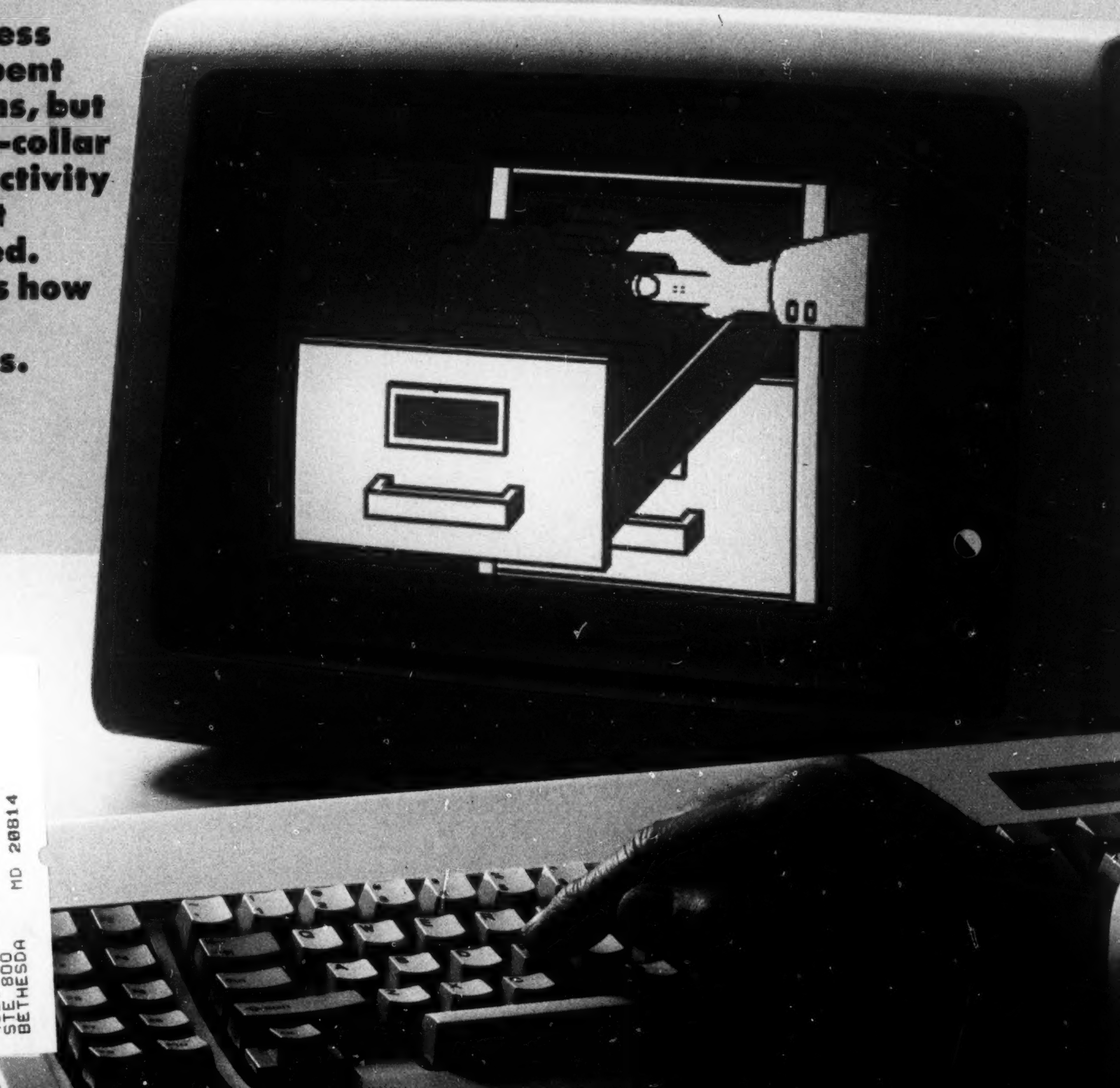
FORTUNE

AMERICA'S POOR
HOW BIG A PROBLEM?

THE PUNY PAYOFF FROM OFFICE COMPUTERS

Business has spent billions, but white-collar productivity hasn't budged. Here's how to get results.



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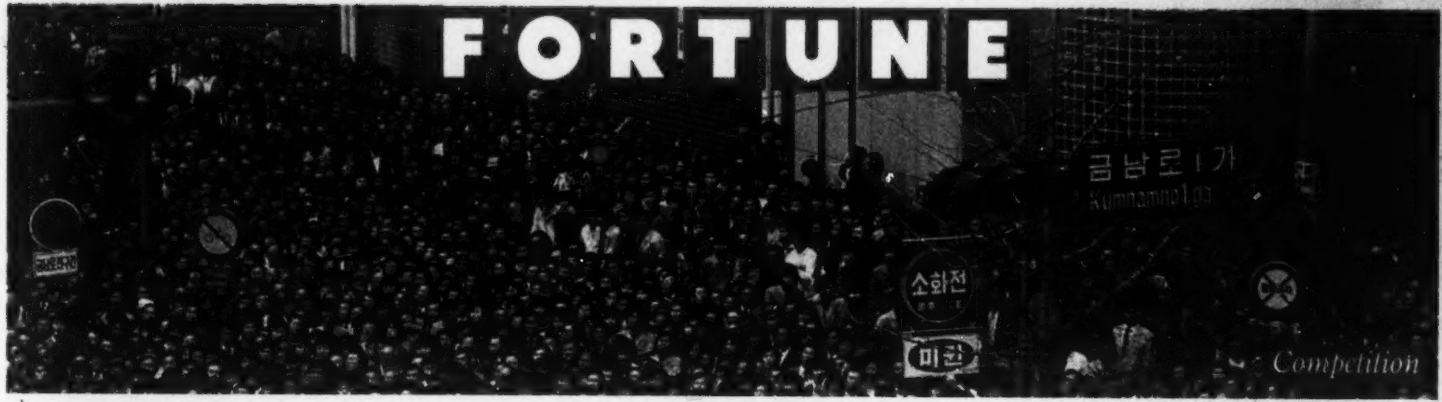
FORTUNE



In Ulf Skogsbergh's cover photo, a computer screen shows Joe Lertola's graphic of office work done the old-fashioned way. See page 20.

MANAGING

The Puny Payoff From Office Computers 20
U.S. business has spent billions on them, but white-collar productivity hasn't risen. *by William Bowen*

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After decades of defeat, it is on the attack. *by Andrew C. Brown*

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Some travel companies can recoup in the U.S. But Pan Am and TWA face an awful summer. *by Kenneth Labich*

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Allen-Bradley has succeeded where GM has not. *by Gene Bylinsky*

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Stop taxing them, boost programs that promote work, and improve the child support system. *by Sylvia Nasar*

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Forget an oil tariff. Here are better ideas. *by Peter Nulty*

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With inflation down and vacancies up, Craig Hall's tax-shelter empire could go under. *by Brian O'Reilly*

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The Soviet disaster will hurt utilities but could well help some suppliers in the U.S. *by Anne B. Fisher and Peter Petre*

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South Korea, Taiwan, Singapore, and Hong Kong are making the right moves to reignite growth. *by Louis Kraar*

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LETTERS TO FORTUNE

Correction

Because of a computer programming error, total returns to investors in FORTUNE*'s Directory of the 500 Largest U.S. Industrial Corporations (April 28) were understated for the majority of companies. The corrected percentages are below.*

The table accompanying the 500 listings that showed the ten highest-ranking companies in total return to investors, 1975-85, should have included Wang Laboratories in eighth place and ConAgra in ninth, displacing Advanced Micro Devices and Telex from the list. The table showing the five lowest companies in 1985 should have included Wheeling-Pittsburgh Steel in fifth place, displacing Control Data.

In this corrected listing, companies are numbered by their sales rank among the FORTUNE *500. Only those for which incorrect figures were given are listed; in some cases, only the 1985 or the ten-year figure changes. The 1985 figures are first, in Roman type. The ten-year average annual figures follow in italics. Negative returns are in parentheses.*

The correct numbers will be listed in reprints combining the FORTUNE *500 and the Service 500, which are distributed in late summer to the listed companies and sold by* FORTUNE.

We regret the error.

---

1. GM (3.96) *9.82*; **2.** Exxon 31.07 *18.11*; **3.** Mobil 20.08 *17.30*; **4.** Ford 35.34 *15.81*; **5.** IBM 30.54 *15.91*; **6.** Texaco (4.27) *10.99*; **7.** Chevron 30.55 *16.80*; **8.** AT&T 35.71 *6.43*; **9.** Du Pont 44.51 *11.12*; **10.** GE 33.13 *17.13*; **11.** Amoco 25.78 *17.36*; **12.** Atl. Rich. 54.19 *16.35*; **13.** Chrysler 49.89 *19.05*; **15.** U.S. Steel 6.12 *0.99*; **16.** United Tech. 24.71 *19.42*; **17.** Phillips Petroleum (4.11) *9.16*; **18.** Tenneco 12.78 *11.44*; **19.** Occidental 20.28 *16.89*; **20.** Sun 17.61 *20.46*; **21.** Boeing 41.26 *35.75*; **22.** P&G 28.00 *8.98*; **23.** R.J. Reynolds 14.15 *16.70*; **24.** Std. Oil 26.04 *15.75*; **25.** ITT 33.38 *12.87*; **26.** Beatrice 73.65 *12.92*; **27.** Philip Morris 14.83 *17.04*; **28.** Dow Chem. 57.37 *3.97*; **29.** McDonnell Douglas 5.32 *20.29*; **30.** Rockwell 21.14 *25.92*; **31.** Unocal (23.70) *14.09*; **32.** Westinghouse 75.64 *27.16*; **33.** Eastman Kodak 11.64 *1.09*; **34.** Dart & Kraft 59.72 *18.50*; **35.** Goodyear 27.19 *10.73*; **36.** Lockheed 13.33 *34.82*.

37. Allied-Signal 39.99 *13.16*; **39.** Union Carbide 106.95 *8.05*; **40.** Xerox 68.36 *7.03*; **41.** PepsiCo 73.56 *16.36*; **42.** Gen'l Dynamics 0.27 *26.72*; **43.** LTV *(3.07)*; **44.** Coca-Cola 41.02 *12.99*; **45.** Sara Lee 66.27 *24.16*; **46.** Ashland Oil 63.29 *18.29*; **47.** 3M 19.20 *9.50*; **48.** Amerada Hess 16.41 *17.81*; **49.** W.R. Grace 28.48 *13.83*; **50.** Coastal 110.36 *28.59*; **51.** Anheuser-Busch 78.91 *17.64*; **52.** Caterpillar 37.50 *2.48*; **53.** Monsanto 14.42 *7.75*; **54.** Georgia-Pacific 9.61 *3.79*; **56.** Honeywell 20.86 *20.19*; **57.** TRW 26.14 *17.51*; **58.** Hewlett-Packard 9.28 *12.62*; **59.** Johnson & Johnson 49.86 *8.45*; **60.** Raytheon 38.23 *20.13*; **61.** Ralston 34.56 *16.12*; **62.** Champion Int'l 14.06 *7.67*; **63.** Sperry 36.10 *7.43*; **64.** Gen'l Mills 41.39 *13.13*; **65.** ConAgra 59.22 *43.12*; **66.** Motorola 17.39 *13.28*; **67.** IC 39.38 *24.24*; **68.** Weyerhaeuser 10.37 *1.75*; **69.** Alcoa 7.68 *11.78*; **70.** Bethlehem (9.07) *(2.51)*; **71.** Northrop 28.50 *32.33*.

72. Burroughs 16.56 *1.13*; **73.** Colgate 38.19 *7.16*; **74.** Textron 50.70 *15.89*; **75.** Texas Instr. (9.96) *2.92*; **76.** ADM 43.81 *10.03*; **77.** Borden 66.39 *21.12*; **78.** Amer. Brands 8.97 *21.56*; **79.** Amer. Home Prod. 30.60 *11.94*; **80.** Pillsbury 42.13 *16.88*; **81.** Emerson Elect. 21.16 *13.10*; **82.** Litton 31.83 *32.91*; **83.** IP (1.16) *3.62*; **84.** Bristol-Myers 30.52 *18.28*; **85.** Martin Marietta 22.77 *28.06*; **86.** No. Amer. Philips (0.51) *19.40*; **88.** PPG 61.25 *21.86*; **89.** NCR 55.42 *24.44*; **90.** CPC 34.15 *15.25*; **91.** Dresser 3.51 *4.34*; **92.** Armco *(1.79)*; **93.** Diamond Shamrock (11.80) *(0.19)*; **94.** Kimberly-Clark 46.79 *20.15*; **96.** Deere 0.13 *5.55*; **97.** Heinz 55.55 *24.53*; **99.** Pfizer 23.63 *17.75*; **100.** Campbell Soup 47.25 *16.99*; **101.** Borg-Warner 20.04 *23.37*; **102.** Firestone 46.29 *6.17*; **103.** Dana 7.36 *13.23*; **104.** Int'l Harvester *(6.06)*; **105.** Boise Cascade 20.90 *12.09*; **106.** Control Data (39.42) *10.31*; **107.** Eaton 23.59 *17.75*.

108. Owens-Ill. 36.01 *12.82*; **109.** Cyanamid 19.32 *14.43*; **110.** Merck 50.28 *10.31*; **111.** Quaker Oats 54.43 *20.89*; **112.** Whirlpool 10.82 *12.18*; **113.** Reynolds Met. 15.89 *10.81*; **114.** Time 47.96 *20.38*; **115.** Amer. Standard 34.41 *23.55*; **116.** Abbott Labs 67.87 *23.76*; **117.** Kerr-McGee 26.62 *2.56*; **118.** Owens-Corning 21.93 *9.75*; **119.** Eli Lilly 75.08 *12.30*; **120.** FMC 20.19 *17.94*; **121.** SmithKline 51.06 *21.90*; **122.** Teledyne 34.30 *43.01*; **123.** Goodrich 27.92 *12.58*; **124.** United Brands 158.68 *19.66*; **125.** Warner-Lambert 41.85 *7.86*; **126.** Inland Steel (1.13) *(0.61)*; **127.** Comb. Eng. 1.23 *16.50*; **128.** Crown Zellerbach 25.04 *6.60*; **129.** Cooper Ind. 55.15 *17.73*; **130.** Scott Paper 50.55 *18.50*; **131.** Grumman 20.59 *22.26*; **132.** Celanese 92.00 *20.31*; **133.** Avon 38.03 *4.84*; **134.** GenCorp. 112.63 *23.19*; **135.** Times Mirror 46.67 24.16; **136.** Chesebrough-Pond's 33.54 *8.29*; **137.** Staley 32.57 *8.49*; **138.** Kellogg 79.31 *18.80*.

139. Swift 3.17; **140.** Amer. Can 25.01 *14.78*; **141.** Burlington 33.15 *7.99*; **142.** Mead 33.46 *20.14*; **143.** Kaiser Alum. 17.36 *6.85*; **145.** Ingersoll-Rand 23.68 *2.69*; **146.** Interco 24.49 *11.71*; **147.** Hercules 21.61 *9.02*; **150.** Fruehauf 14.57 *13.60*; **152.** USG 77.84 *27.46*; **153.** James River 40.44 *35.68*; **154.** Revlon 68.55 *8.14*; **155.** Kidde 24.65 *19.56*; **156.** Singer 45.02 *17.66*; **157.** Amer. Petrofina (22.55) *10.17*; **158.** Gillette 27.97 *13.86*; **159.** Lear Siegler 13.80 *28.54*; **160.** Baxter Travenol 22.92 *6.06*; **161.** Wang Labs (23.70) *44.41*; **163.** Harris 3.81 *15.05*; **165.** Engelhard (10.94); **166.** Jim Walter 42.81 *8.85*; **167.** Pennzoil 84.23 *26.41*; **168.** Cabot (0.87) *27.36*; **169.** Murphy Oil 17.35 *21.12*; **170.** Sherwin-Williams 62.95 *22.26*; **171.** Allegheny (7.68) *6.59*; **172.** SCM 77.03 *27.21*; **173.** Gannett 33.86 *19.14*; **174.** Cummins (4.31) *18.70*; **176.** Upjohn 95.73 *16.15*; **179.** Rohm & Haas 23.79 *14.34*.

180. Squibb 52.56 *12.92*; **181.** R.R. Donnelley 32.52 *23.65*; **182.** Hershey 37.57 *24.59*; **183.** AMAX (15.66) *(5.04)*; **184.** Nat'l Dist. & Chem. 44.73 *16.70*; **185.** Morton Thiokol 36.92 *28.21*; **186.** White Consol. 27.76 *12.07*; **187.** Tribune 64.92; **188.** Great Northern Nekoosa 22.74 *16.39*; **189.** Schering-Plough 67.34 *5.12*; **190.** Libbey-Owens-Ford 12.89 *14.42*; **192.** Mapco 49.75 *4.67*; **193.** Baker 13.28 *6.56*; **194.** Paccar 9.32 *28.51*; **195.** Olin 29.46 *14.89*; **197.** Ogden 24.58 *21.02*; **198.** Manville 2.13 *(8.38)*; **199.** Hammermill 19.09 *19.15*; **200.** Union Camp 17.43 *10.17*; **201.** J.P. Stevens 87.58 *15.12*; **202.** Sterling Drug 35.21 *12.14*; **203.** Colt 26.21 *27.24*; **204.** Pitney Bowes 40.58 *26.16*; **205.** Air Prod. 42.79 *8.83*; **206.** Anderson Clayton 61.63 *17.33*; **207.** Koppers 21.84 *7.13*; **208.** Gen'l Signal 2.76 *14.21*; **210.** Johnson Controls 23.83 *27.68*; **211.** Emhart 15.47 *21.39*; **212.** Black & Decker (5.55) *2.51*.

213. Knight-Ridder 39.41 *21.44*; **214.** Nat'l Gypsum 79.16 *26.42*; **215.** Westvaco 17.90 *16.41*; **216.** Triangle Ind. 317.42 *24.59*; **217.** Corning Glass 84.88 *14.66*; **219.** Armstrong 37.36 *12.08*; **220.** Texas Oil & Gas (12.97) *29.72*; **223.** AMP 10.28 *17.42*; **224.** Int'l Minerals & Chem. (0.04) *10.28*; **225.** Zenith *1.85*; **228.** CBI (16.34) *0.32*; **229.** Ethyl 74.70 *27.60*; **231.** Brunswick 32.20 *28.20*; **233.** Gould 48.94 *10.81*; **234.** Tosco *4.90*; **235.** Hormel 72.99 *24.65*; **237.** McGraw-Hill 15.74 *26.89*; **239.** VF 100.65 *30.46*; **240.** Crown Central *16.08*; **241.** Monfort 61.18 *17.21*; **242.** Parker Hannifin 26.31 *19.32*; **243.** Witco 23.48 *21.97*; **244.** Dover 20.63 *24.89*; **245.** Tektronix (0.93) *11.21*; **246.** NL 24.80 *12.11*; **247.** Square D 13.91 *13.54*; **248.** N.Y. Times 29.39 *32.45*; **249.** Cyclops 45.19 *23.97*; **252.** Pacific Resources *20.14*; **253.** Ft. Howard Paper 69.71 *24.25*; **256.** Perkin-Elmer 20.78 *13.80*; **257.** Polaroid 60.60 *6.67*.

258. Sundstrand 27.18 *16.60*; **259.** Coors 37.02 *0.15*; **260.** Fleetwood (5.86) *16.57*; **261.** NVF *0.11*; **263.** Federal Co. 74.43 *24.66*; **264.** Harsco 50.24 *21.71*; **265.** Hughes Tool 0.78 *1.63*; **266.** Louisiana-Pacific 8.68 *12.41*; **270.** Stone Container 23.85 *24.57*; **272.** Hasbro 60.83 *59.07*; **273.** Louisiana Land 0.66 *9.87*; **274.** Int'l Multifoods 64.19 *19.09*; **275.** Stanley Works 27.92 *20.44*; **276.** West Pt.-Pepperell 27.40 *16.57*; **277.** Norton 13.74 *17.41*; **278.** Nat'l Service Ind. 48.65 *29.93*; **280.** Heileman Brewing 19.06 *35.16*; **281.** Asarco *6.43*; **283.** EG&G 22.91 *28.80*; **284.** Masco 46.26 *15.69*; **285.** Willamette Ind. 53.01 *13.96*; **286.** Becton Dickinson 60.34 *7.23*; **287.** Ex-Cell-O 4.62 *23.96*; **288.** Tyson Foods 91.57 *46.51*; **290.** Certain-Teed 24.76 *9.14*; **291.** Hartmarx 43.95 *22.76*; **292.** Ball 40.71 *26.28*; **293.** Rexnord 24.27 *10.16*; **294.** Crane 39.59 *14.07*; **295.** Timken (10.14) *7.03*.

296. Washington Post 49.29 *38.30*; **297.** Magic Chef 53.16 *28.40*; **298.** Clorox 71.55 *21.04*; **299.** Pennwalt 16.24 *11.30*; **302.** Collins & Aikman 68.50 *24.69*; **303.** Dow Jones 15.23 *25.48*; **304.** Dean Foods 58.96 *45.08*; **305.** Brockway 71.53 *11.70*; **306.** Cap. Cities 36.51 *26.93*; **307.** Springs Ind. 36.02 *21.76*; **308.** Gen'l Instr. 11.06 *22.52*; **309.** Vulcan 35.75 *25.07*; **310.** Quaker State 39.18 *11.88*; **311.** Varian Assoc. (22.70) *18.83*; **312.** Gen'l Cinema 46.25 *26.44*; **313.** Clark Equip. 5.54 *5.45*; **314.** Cluett Peabody 47.93 *23.75*; **315.** Allis-Chalmers *(7.36)*; **316.** Potlatch 36.54 *8.56*; **317.** E-Systems 25.79 *33.14*; **318.** Lafarge 2.60; **319.** Avery 15.75 *13.22*; **320.** A.O. Smith 75.81 *18.99*; **322.** Gerber 77.88 *20.55*; **323.** Brown-Forman 54.45 *27.07*; **324.** Fuqua 19.37 *36.97*; **325.** Idle Wild Foods 12.36; **327.** Amer. Greetings 7.26 *25.76*; **328.** Sheller-Globe 12.84 *16.00*; **329.** Fairchild Ind. (33.77) *20.34*.

330. Chromalloy Amer. *9.38*; **331.** Mitchell Energy (13.76) *23.92*; **332.** Tyler 3.13 *23.26*; **333.** Dayco 22.31 *12.84*; **334.** Bowater 24.16; **335.** Lubrizol 37.88 *7.92*; **338.** Federal-Mogul 29.02 *26.89*; **340.** Phelps Dodge *(1.65)*; **341.** Sanders Assoc. (2.61) *28.33*; **342.** Sun Chem. 29.77 *28.21*; **344.** Outboard Marine 0.77 *12.25*; **345.** McCormick 9.86 *10.65*; **346.** Lone Star 26.18 *15.23*; **347.** Sonoco 61.09 *24.99*; **348.** Amdahl 10.91; **349.** Interlake 23.07 *15.32*; **350.** M/A-Com (21.12) *26.94*; **351.** Big Three 28.17 *9.24*; **352.** Champion Spark Plug 22.12 *4.43*; **353.** Tecumseh 36.31 *22.01*; **354.** Reichhold Chem. 4.15 *15.45*; **355.** Arvin Ind. 53.63 *23.15*; **356.** Harcourt Brace Jovanovich 68.90 *25.97*; **357.** Insilco 20.43 *21.74*; **358.** MEI 3.32 *38.69*; **359.** Figgie 80.30 *23.57*; **360.** Joy Mfg. (0.37) *5.72*; **361.** United Merchants *3.46*; **362.** Bemis 74.43 *26.85*; **363.** Federal Paper Board (1.09) *17.50*.

365. Echlin 18.21 *12.70*; **367.** Armstrong Rubber (12.31) *20.60*; **368.** Deluxe Check Printers 68.40 *26.17*; **369.** Midland-Ross 8.30 *13.82*; **370.** Mohasco 37.44 *10.14*; **371.** Bell & Howell 19.08 *15.04*; **372.** Nucor 68.67 *37.56*; **373.** Cincinnati Milacron (12.45) *22.94*; **374.** GAF 142.21 *23.32*; **375.** Newmont Mining 34.31 *11.82*; **376.** Economics Lab. 57.95 *9.29*; **377.** Freeport-McMoRan 10.74 *18.03*; **378.** Anchor Hocking 38.52 *12.43*; **379.** Briggs & Stratton 10.29 *8.43*; **380.** Consolidated Papers 54.32 *31.53*; **381.** Scott & Fetzer 5.99 *18.67*; **382.** A.H. Robins *3.42*; **384.** Amsted Ind. 21.75 *17.28*; **385.** Worthington Ind. 46.83 *35.06*; **386.** Southwest Forest Ind. *9.25*; **387.** Smith Int'l (33.53) *(4.71)*; **390.** Maytag 84.17 *17.01*; **391.** Nalco Chem. 5.89 *10.27*; **393.** Macmillan 66.38 *39.20*; **394.** Raychem 69.69 *12.75*; **395.** Tyco Labs 41.70 *27.60*; **397.** Rubbermaid 58.39 *21.68*; **399.** Dennison Mfg. 26.22 *25.31*.

401. Ferro 37.31 *13.05*; **403.** Eagle-Picher 32.44 *13.89*; **404.** Dexter 39.60 *22.74*; **405.** Jefferson Smurfit 47.23; **406.** Savannah Foods 82.67 *33.56*; **407.** Flowers Ind. 43.20 *37.42*; **408.** Sealed Power 11.35 *22.55*; **410.** Nashua *15.13*; **411.** Wrigley 61.65 *8.69*; **412.** H.H. Robertson (36.64) *14.54*; **413.** Ceco Ind. 46.75 *16.52*; **414.** AM Int'l *(2.12)*; **416.** Nortek (0.32) *22.60*; **418.** Bausch & Lomb 28.35 *18.83*; **419.** Illinois Tool Works 26.52 *15.93*; **420.** Warnaco 77.03 *26.22*; **421.** Snap-on Tools 24.14 *13.60*; **423.** Phillips-Van Heusen 28.04 *28.67*; **424.** Kellwood 94.95 *20.81*; **425.** Fieldcrest 17.26 *16.51*; **426.** Moore McCormack 21.49 *10.16*; **427.** Westmoreland Coal 19.60 *(4.24)*; **428.** Media Gen'l 24.08 *21.78*; **429.** Foxboro (10.67) *11.11*; **430.** Roper 13.25 *21.61*; **431.** Tracor (4.58) *35.87*; **432.** Rorer Grp. 46.30 *15.31*; **433.** Oxford 49.63 *26.90*; **435.** Carpenter Tech. (9.54) *18.42*.

436. Handy & Harman 17.24 *21.47*; **437.** Liz Claiborne 91.69; **439.** Cameron Iron Works 3.92 *4.25*; **441.** Liquid Air 37.41 *7.42*; **443.** No. Amer. Coal 46.96 *18.16*; **444.** Pittway 15.55 *13.27*; **445.** Easco 2.78 *8.16*; **447.** Bairnco 2.10 *38.05*; **449.** Pentair 37.74 *42.49*; **450.** Nerco 13.93 *42.49*; **451.** Dorsey 71.03 *24.67*; **453.** Jostens 34.18 *27.91*; **454.** Sybron 10.97 *8.10*; **455.** Cooper Tire 14.15 *29.50*; **456.** Harvey Hubbell 42.08 *22.44*; **457.** Manhattan Ind. 11.18 *19.64*; **458.** Datapoint (57.96) *3.78*; **459.** Shaw Ind. 45.32 *25.03*; **461.** Hillenbrand 30.32 *22.55*; **462.** Todd Shipyards (6.32) *24.72*; **464.** Ametek 19.32 *24.26*; **465.** Loral 41.79 *34.95*; **466.** Int'l Flavors & Frag. 48.40 *3.94*; **467.** Butler Mfg. 32.64 *13.76*; **469.** Herman Miller 3.02 *49.75*; **470.** Universal Foods 31.27 *20.63*; **472.** Stanadyne 43.33 *21.95*; **473.** Harnischfeger *2.01*; **474.** Carlisle 4.30 *33.65*; **475.** Leggett & Platt 79.91 *33.30*.

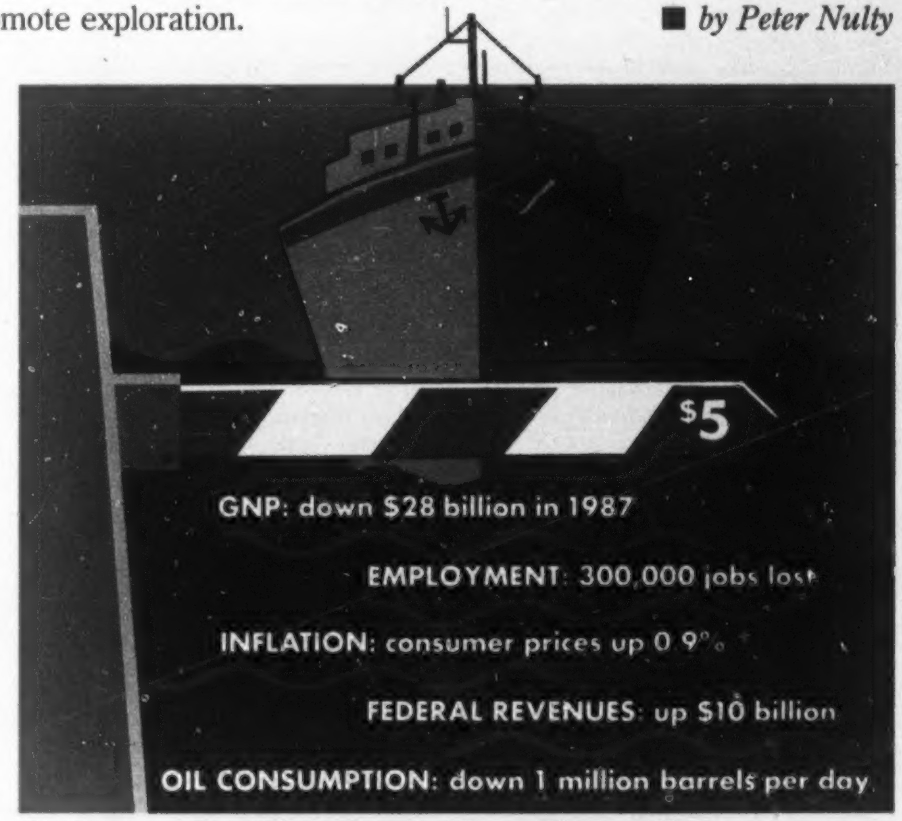
476. U.S. Tobacco (4.98) *24.32*; **477.** Meredith 25.70 *38.72*; **478.** Hon Ind. 86.97 *26.31*; **479.** Dataproducts 8.76 *22.96*; **480.** Barnes Grp. 31.73 *18.91*; **481.** Gifford-Hill (20.18) *17.16*; **482.** C.R. Bard 98.64 *19.14*; **484.** Philips Ind. 60.73 *36.83*; **485.** Amer. Bakeries *14.17*; **486.** Ampco-Pittsburgh (9.68) *12.26*; **487.** Longview Fibre 35.21 *13.54*; **489.** H.B. Fuller 24.70 *24.45*; **490.** Trinity Ind. (6.97) *20.50*; **491.** Chesapeake 19.90 *17.02*; **492.** Commerce Clearing House 52.09 *26.10*; **493.** Coleman 22.79 *14.48*; **495.** Standard Register 63.13 *36.53*; **496.** Lancaster Colony 19.77 *20.76*; **497.** Scientific-Atlanta 10.49 *20.82*; **498.** S.S. Pierce *44.90*; **499.** Amer. Maize-Prod. (8.76) *4.99*; **500.** Winnebago (18.11) *9.39*. ■

POLITICS & POLICY

HOW TO KEEP OPEC ON ITS BACK

Worries that cheap oil will make the U.S. too dependent on imports are fueling support for a tariff. But that would hobble the economy, boost inflation, and destroy jobs. Better ideas: lift price controls on natural gas and promote exploration.

■ *by Peter Nulty*


$5
GNP: down $28 billion in 1987
EMPLOYMENT: 300,000 jobs lost
INFLATION: consumer prices up 0.9%
FEDERAL REVENUES: up $10 billion
OIL CONSUMPTION: down 1 million barrels per day

An Import Fee That Taxes More Than Oil

A $5-per-barrel tax on imported oil would produce the consequences above in 1987, according to the Congressional Research Service of the Library of Congress. Because economic growth would slow, the budget deficit would fall by less than half the $10 billion raised by the tax.

WITH GASOLINE PRICES averaging well below $1 a gallon, tanking up at the pumps leaves many an American motorist with a sense of well-being he hasn't felt in years. Nevertheless, a lot of people worry that the bad consequences of low-cost oil might outweigh the good. An opinion poll in April found that 60% of the public fears that cheap oil could so damage the U.S. petroleum industry that it would leave the country dangerously dependent on imports. More than half said they favor a tax on imported oil. A tariff would produce double benefits: it would help home-pumped oil compete with imported crude and raise billions for the impoverished national treasury.

Fear is understandable. Memories are fresh of the Arab oil embargo, ever-spiraling prices, and interminable lines at the gas pumps. No one wants his economic well-being or national security held hostage by a foreign power. But the benefits of cheap oil are nothing to sneeze at either. So what policy makes sense?

Plenty of proposals are floating about, the most popular being to slap a tax of $5 or $10 a barrel on imported oil. An import tax would let U.S. oil producers raise prices by the amount of the tax and make America's high-cost wells profitable. That would cut demand for imports by keeping in operation more than 400,000 so-called stripper wells, each pumping a measly ten barrels a day or less but totaling 8% of the oil used in the U.S.

For the moment an import tax looks like a nonstarter in Washington. Though the proposal has the support of some important Republicans, including Pete Domenici, chairman of the Senate Budget Committee, the Reagan Administration is dead set against any tax increases. However, the pressure for an import tax could become irresistible if oil prices do not rebound soon. Many oil experts predict that Saudi Arabia or OPEC as a whole will cut production enough to push prices back up to $20 a barrel or so by late summer. If those predictions prove false and prices stay down, says a Washington energy consultant, "Texas will go bonkers."

The import tax sounds simple and, with the price of crude way down, relatively painless. In operation, however, it probably would prove wondrously complex and more costly than proponents claim. At the same time, the dangers of increasing dependence on OPEC seem vastly overblown. The warnings come mostly from people who have a vested interest in the domestic oil industry or are philosophically predisposed to government's playing a large role in energy.

continued

RESEARCH ASSOCIATE *Alicia Hills Moore*

ILLUSTRATION BY JOHN PIRMAN

At bottom the tax would preserve jobs—and profits—in the oil industry at the cost of fewer jobs in other industries, slower economic growth, and faster inflation. The Congressional Research Service estimates that a $5-per-barrel tax on imported oil would reduce economic output by about $28 billion next year, add nearly a full percentage point to the inflation rate, and eliminate 300,000 jobs (net of jobs saved in the oil industry).

The import tax is a woefully inefficient way to raise federal revenues. Data Resources Inc., an economic forecasting firm, estimates that the budget deficit would decline by only 25 cents for each dollar in oil import taxes. The other 75 cents would be offset by higher federal energy expenses and lower income tax payments resulting from slower economic growth. An increase in the federal excise tax on gasoline would be a less disruptive way to narrow the deficit. But a gasoline tax would apply to domestic as well as imported oil and would not help U.S. producers.

Sheltering the oil industry would create havoc for other businesses. U.S. petrochemical companies would face higher costs for feedstocks than foreign competitors. The petrochemical industry almost certainly would demand relief from the tax. So would farmers, textile makers, and other heavy users of petroleum. Senator Phil Gramm, one of the few Texans in Washington who oppose the tax, points out that Canada, Mexico, and Venezuela might claim exemptions from taxes on their oil under trade treaties with the U.S. Says Lloyd Unsell, president of the Independent Petroleum Association of America: "The import fee would look like a giant sieve."

THE BENEFITS of cheap oil are considerable. Wharton Econometrics, another forecasting firm, estimates that a price drop to an average of $15 a barrel this year would reduce inflation by 1.5 percentage points, add 1.4 percentage points to economic growth, and create some 500,000 jobs, net of layoffs in the Southwest. FORTUNE believes the effects would be somewhat smaller than Wharton's estimates, but still large.

The risks of rising oil imports are harder to quantify. Keeping foreign oil out will not help the U.S. if foreign producers raise prices. Since all producers, U.S. and foreign, charge the world price for oil, the shock to the U.S. economy would be just as great as in countries that import all their oil. The government could shelter consumers with price controls on domestic oil, as it did in the Seventies, but that almost certainly would give rise to renewed shortages.

Sheltering the oil industry would create havoc for other businesses. U.S. petrochemical companies and other heavy users of petroleum almost certainly would demand relief from an import tax.

The oil world has changed radically in the past 15 years. OPEC had the power to make price increases stick in the Seventies because other oil producers could not take up the slack when the cartel reduced output. Oil prices have collapsed because non-OPEC countries have increased production mightily and OPEC could not agree to cut output enough to keep prices up.

The era of high prices brought other changes that reduce the likelihood that the cartel will regain its muscle soon. Natural gas has become a much stronger competitor to oil, and new gas discoveries have created surpluses in the U.S., Canada, the Soviet Union, and elsewhere. Some experts predict that the surplus will end soon, but they have been saying that for three years. The U.S. economy depends less on oil than it used to. Conservation has reduced oil consumption by 15% and cut oil consumed per dollar of gross national product by 33%. Whatever the effect of the Soviet nuclear disaster on U.S. public opinion, the share of electricity produced by atomic power will increase by the 1990s (see Looking Ahead).

Lower oil prices are bound to foster higher consumption. The American Petroleum Institute reports a 3.5% jump in the first quarter of this year. But much of the energy conservation of the last 15 years is built into today's more efficient manufacturing facilities and fuel-efficient autos and cannot be quickly reversed. Finally, the U.S. has 500 million barrels of oil, equal to more than three months of imports, stockpiled in the strategic petroleum reserve. OPEC accounted for 36% of U.S. imports last year and will supply a somewhat larger portion this year. The reserve would last more than six months even if OPEC united in a total embargo of the U.S.

Since competition from new oil producers and from other fuels are what broke OPEC's back, U.S. energy policy should be aimed at enhancing that competition. One way is to encourage exploration for major U.S. oil deposits. Large, highly promising federal tracts in Alaska, off the coast of California, and in the Gulf of Mexico have not been leased for exploration. Even if the tracts were opened, the federal bidding system discourages explorers. Winning bidders must make large, nonrefundable, up-front payments, called bonus bids, before they look for oil. The government could encourage more exploration by forgoing bonus bids in favor of collecting higher royalties on production.

The government also should remove the remaining shackles on natural gas. Congress is considering several proposals to do that, but they seem to stand little chance of passing this year. One would repeal the Fuel Use Act of 1978, which prohibits new industrial boilers from burning natural gas even though it has been in surplus since 1982. Another measure would deregulate the roughly 45% of U.S. natural gas production, called old gas, still under price control at the wellhead. The Department of Energy estimates that lifting the last price controls would increase the output of old gas by around 5%, lower the average price of gas by about 15%, and reduce oil imports by 8%.

With oil selling in the low teens, this would be a golden time to add to the strategic petroleum reserve. As imports increase, the cushion provided by the reserve gets thinner. The Reagan Administration has suspended purchases because, says Energy Secretary John Herrington, "the national debt has just passed $2 trillion." But it makes more sense to buy when oil is cheap, and pay the interest on a slightly higher deficit, than to wait until the cost rises.

Strengthening the competitive alternatives to OPEC oil would reinforce the lesson in free-market economics that the cartel is just learning. Indeed, anyone who fears that OPEC will leap blithely at the chance to repeat its performances of 1974 and 1979 need only look at what has happened to it since competition started driving prices down in 1981. OPEC oil revenues, which reached a high of $278 billion in 1980, could fall to $80 billion or less this year. In countries where oil revenues and GNP are nearly synonymous, that represents pain. The best restraint on OPEC will be knowledge that a dynamic energy market is at work. ■

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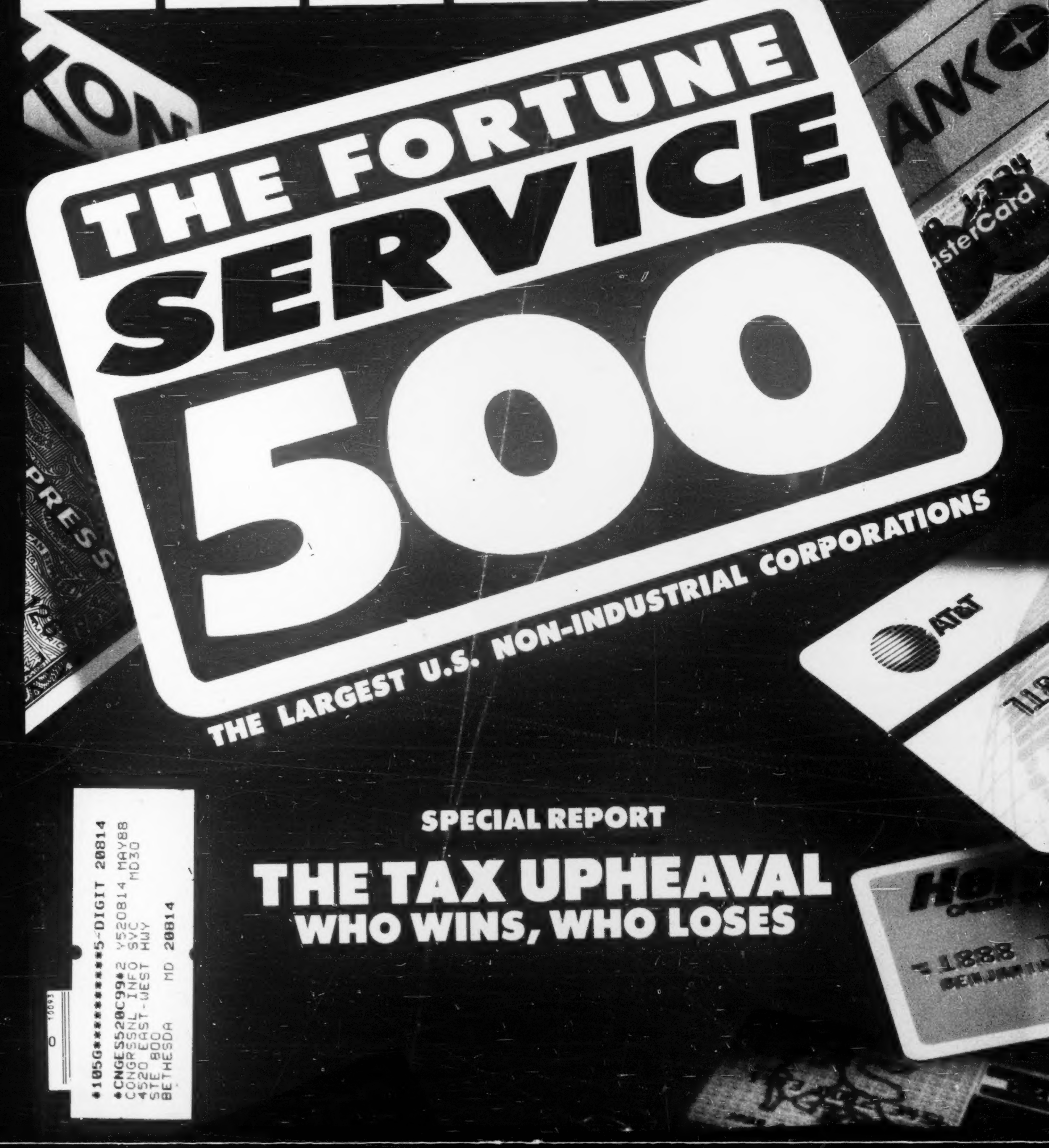

THE FORTUNE SERVICE 500

THE LARGEST U.S. NON-INDUSTRIAL CORPORATIONS

SPECIAL REPORT

THE TAX UPHEAVAL
WHO WINS, WHO LOSES

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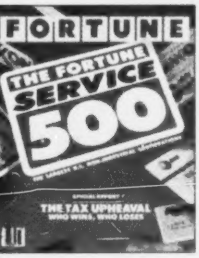

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DIRECTORY OF THE LARGEST U.S. NON-INDUSTRIAL CORPORATIONS

THE FORTUNE SERVICE 500

THE FORTUNE
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WALTER WICK

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THE SERVICE 500

WHAT'S TAKING THE PUNCH OUT OF PROFITS

Financial service companies, paced by savings institutions, thrived on lower interest rates last year. But other giants of the U.S. service economy, from railroads to casualty insurers, got skewered by deregulation, disinflation, price wars, and escalating costs. ■ *by Thomas Moore*

THE BRIGHTEST SPARKLE in America's service economy last year came from, of all places, savings institutions and commercial banks, two businesses that have seemed in unalleviated agony for the past few years. Large savings institutions—survivors in an industry rocked by record failures, forced mergers, and old-fashioned runs by depositors—turned out to be a veritable glamour group. Profits of the 50 biggest nearly quadrupled in 1985. Profits of the 100 largest banks rose 38%.

Without those stunning performances, earnings for FORTUNE's Service 500 would have dropped last year. As it was, they rose only 1.7% from 1984. In contrast, profits of the FORTUNE 500 industrial companies fell 19%. Service companies get more than half their revenues from services; industrial companies get more than half their revenues from manufacturing or mining. (The profits of the service companies exclude the earnings of life insurers, which do not report on the same accounting basis as other corporations.)

Profits for many powerhouses of the service economy hit the skids last year. Transportation companies, fighting brutal price wars unleashed by deregulation, fell back the most. Disinflation undid retailers as discounting became a year-round routine. Low oil prices idled drilling rigs and hammered oil service companies. Altogether, 47 companies on the Service 500 lost money, 11 more than in 1984. Yet 1985 was a dandy year for investors betting on the service sector. The median total return to investors (capital gains plus dividends) for companies on the Service 500 was a dazzling 39.84%.

The disappointing profits raise serious questions about the potential of service industries, the new-job locomotives many economists and politicians have been counting on as the antidote to waning U.S. industrial might. On the whole, service companies have been unable to raise prices enough to maintain profit margins, so that earnings have fallen while revenues climbed.

Productivity has declined in services despite vast investments in technology, and costs have risen faster than in manufacturing. Last year wages in the labor-intensive service sector rose 4.7%, vs. 3.5% in manufacturing. And size is becoming a prerequisite for success in an array of service businesses. Many giants on the Service 500 fared better than their industries as a whole. Says Allen Sinai, chief economist at Shearson Lehman Brothers: "Services are where most of the economic activity and employment growth are, but the picture one gets is of a business sector starved for profits."

Most of the profit propulsion for savings institutions last year came from falling interest rates. When rates drop, the price thrifts pay for the money they lend falls faster than the interest they collect on their loan portfolios. Investors were quick to see what was happening. They bid up the price of thrift stocks, propelling them into the top four slots among the Service 500 in total return to investors. The median total return for the industry was the highest among FORTUNE's service classifications in 1985 and over the past ten years. The other classifications: diversified services, commercial banking, diversified financials, retailing, transportation, utilities, and life insurance.

A fleet-footed suburban-based S&L in California was best of the best. Downey Savings & Loan, a Costa Mesa thrift with 41 branches in California and Arizona, ranked No. 43 by assets among savings institutions. Downey's profits more than quadrupled to $53 million last year, and its book value per share doubled. The price of its stock shot from $6.25 a share in January to $28 by year-end. Total return to investors: 568%.

Downey accomplished this feat by transforming itself from a sleepy little S&L into a go-go lender, real estate developer, and bond market speculator rolled into one. It hired dozens of new lending agents and nearly doubled its loan volume. Downey raised the proportion of adjustable-rate loans in its mortgage portfolio from 35% to 48% and increased its lending to consumers and businesses. Management hopes the new loans, which adjust more quickly to interest rate changes, will preserve profitability if rates shoot up again, raising the cost of funds.

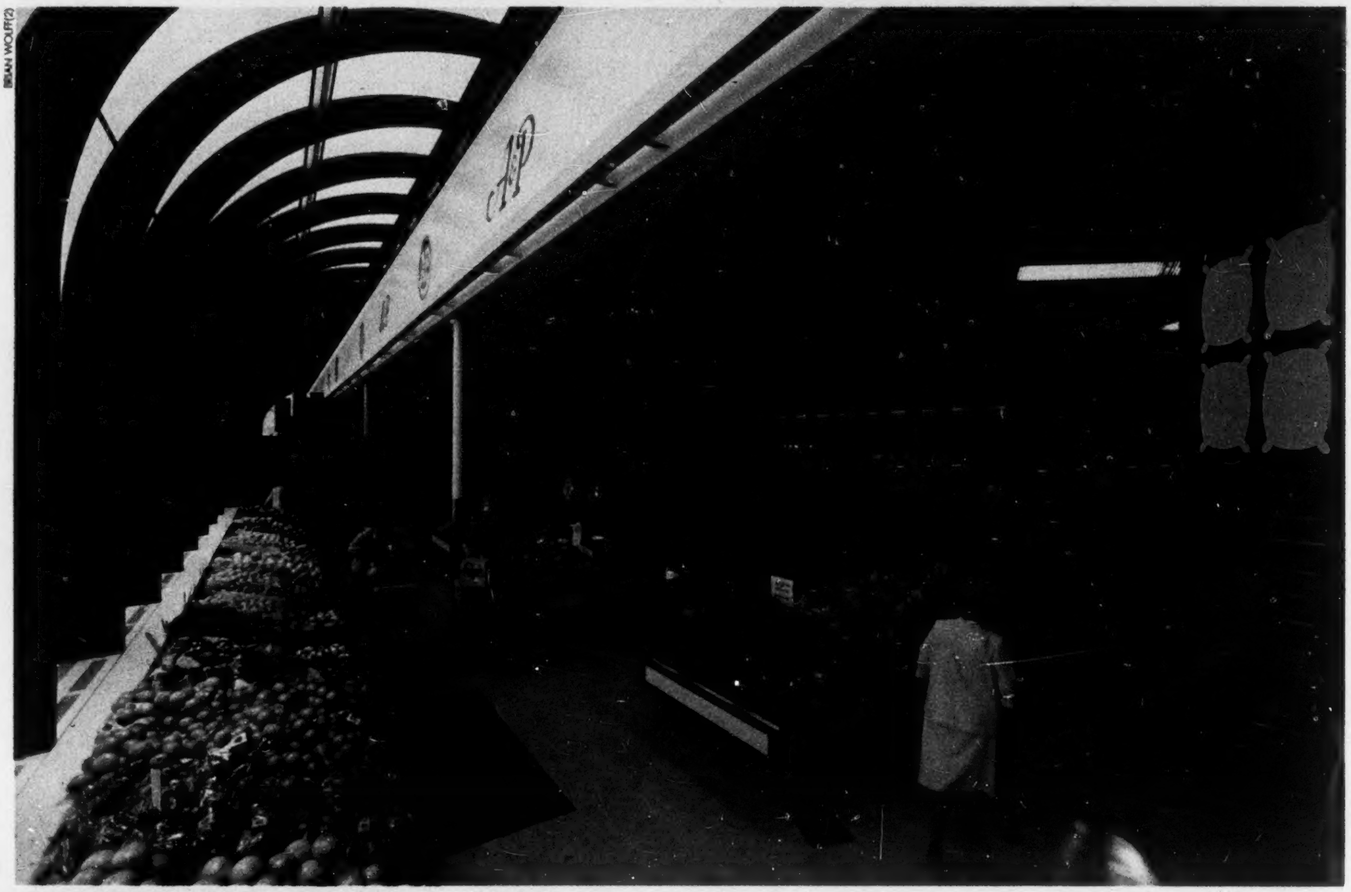
Downey's real estate investments are vast for an outfit its size: about 12% of its $2.6 billion in assets. That is more than Downey could invest in real estate now under newly revised state regulations. Downey developed and owns most of the small shopping centers in which it has branches. Says Chief Executive Gerald H. McQuarrie: "Some of

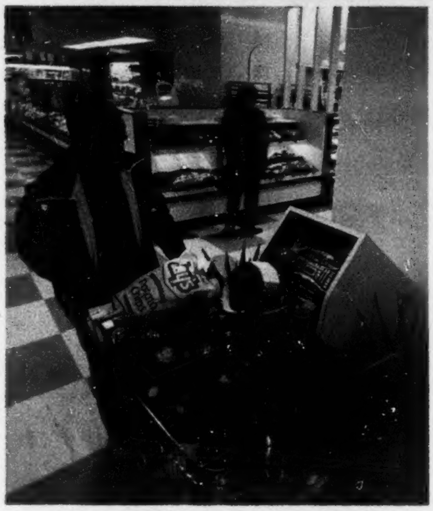
RESEARCH ASSOCIATES *Margaret A. Elliott and Douglas Steinberg*

Humans *still handle 92% of the transactions at Downey Savings & Loan, although the company is speeding the introduction of teller machines. Based in a Los Angeles suburb, Downey had the highest total return to investors on the Service 500 last year.*

PHOTOGRAPH BY MAX AGUILERA-HELLWEG

BRIAN WOLFF(2)





A&P's Futurestore *in Allendale, New Jersey, courts busy upscale customers by combining the feel of an outdoor produce market with high-tech efficiency. The computerized "product locater" at left tells customers where to find anything from applesauce to zucchini.*

those branches cost less than $200,000 to build and are worth over $1 million now. That's a pretty good investment, don't you think?" McQuarrie's latest venture is a $220-million complex in Newport Beach that will include Downey's new headquarters, a Marriott hotel, a shopping center, condominium apartments, and houses.

The company's biggest and riskiest new source of profits is buying and selling securities. Anticipating the drop in interest rates, Downey bought nearly $500 million in mortgage-backed securities last year and sold them for a capital gain of $35.9 million, nearly half its pretax income. Such gains will be hard to repeat, though the company has already scored a similar coup in 1986. Its first-quarter earnings more than doubled from a year earlier to $21 million. All the increase came from the sale of municipal bonds Downey bought last winter.

The thrifts aren't all prospering. Six of the 50 largest lost money last year, and United Financial Group, the biggest in Texas, took Texas-size losses on home loans as oil industry problems depressed local real estate values. United's total return to investors was minus 35%, the worst on the Service 500.

Regulators worry that similar problems could jump up and bite newly prosperous thrifts. Richard Pickering, director of research at the Federal Home Loan Bank Board, the agency that polices federally chartered S&Ls, says potentially bad loans pose more of a threat than a new interest rate squeeze. Some thrifts, he says, have expanded lending without adequate controls. Financial Corp. of America, the biggest S&L at the end of 1985, is still suffering from bad real estate and energy loans made in 1984. Los Angeles-based H.F. Ahmanson, No. 2 at the end of last year, overtook Financial Corp. in total assets in this year's first quarter.

Falling interest rates were a boon to commercial banks as well. BankAmerica had to write off enormous amounts of commercial, energy, shipping, agriculture, and Third World loans, losing a vault-draining $337 million last year. But its loss was the exception among big banks: most absorbed their problems easily as the spreads widened between their cost of funds and the yields on their loan portfolios, and as their moves into new businesses began to pay off.

continued

No bank has done more to develop new revenue sources than Citicorp, the biggest of them all. With $174 billion in assets, it widened its lead over reeling BankAmerica to $55 billion—more than the total assets of the seventh-largest bank, Security Pacific Corp. But growth in non-interest revenues, not assets, is the measure Citicorp wants to be judged by now. While its net interest income grew 26% last year to $5.4 billion, its non-interest revenues, largely from securities trading and fees on consumer loans, credit cards, and investment banking services, jumped 32% to $3 billion. "If banks are to continue to have a business, they must provide services other than plain old lending," says a high Citicorp executive. "Commercial banking is going out of style."

The bank's top officers have been saying for more than a year now that its aggressive marketing of credit cards and consumer loans is about to bear fruit. But last year Citicorp wrote off $585 million in credit card debt and consumer loans, more than double the amount in 1984. To put that write-off in perspective, Citicorp's total gain from all its bond trading and foreign currency exchange activities was $568 million.

The consumer business plainly has widened Citicorp's lead in total assets. Consumer loans, including credit card balances, will surpass commercial loans this year. But the consumer business, along with equally aggressive Third World lending, has so far left the bank with middling results in the measures that count most. Profits were up 12% last year, much less than the increases at most large banks. Citi's return on equity was 53rd among the 100 largest banks last year, earnings-per-share growth over the last ten years was 51st, and ten-year total return to investors was a disheartening 82nd.

The opposite approach to Citicorp's paid off unusually well last year for J.P. Morgan & Co., owner of Morgan Guaranty Trust, the fifth-largest bank. Morgan eschews consumer banking altogether and limits lending to corporate and government borrowers. It also has been betting heavily on interest rate moves. Bounteous returns on Morgan's $10-billion bond-trading portfolio lifted profits to 70% of Citicorp's even though Morgan's loan portfolio is less than one-third Citicorp's size. Morgan's profits rose 31% in 1985.

Brokerage and investment banking houses cashed in as lower interest rates set off a bull market in stocks, created opportunities to profit trading bonds, and increased the underwriting of corporate debt. Merrill Lynch, moving up two notches to No. 4 among diversified financial companies last year, more than doubled earnings on an 18% revenue gain. Overall, the securities industry's pretax income leaped 161%, according to Perrin Long, who follows the business for Lipper Analytical Services.

THE HIGHEST RETURN ON SALES

A PAYOFF FROM VALUE INVESTING

Berkshire Hathaway has proved yet again that patience pays—provided investors make the right choices in the first place. The company's profit as a percent of sales led the Service 500 in 1985 at an awesome 52.4%, vs. a median of 2% for all diversified service companies. Why this stunning return? Some $232 million of the conglomerate's $436 million in earnings came from a gain on shares Berkshire owned of General Foods, which was taken over by Philip Morris.

But as Chairman Warren Buffett is quick to point out in his annual letter to shareholders, "Reported capital gains or losses in any given year are meaningless as a measure of how well we have done in the current year." What's more important, he says, is why he bought the stock in the first place. Berkshire Hathaway, with operations in insurance, publishing, and retailing, paid $150 million for its General Foods shares from 1979 to 1983 because the company met Buffett's criteria for investment: he believed the stock was undervalued, he liked the food business, and he admired the management.

A figure that Chairman Buffett considers the better benchmark of a company's success—how its shareholders fare—also is outstanding at Berkshire Hathaway. The company's total return to investors over the past decade averaged 50.41% a year compounded, putting it third among the Service 500 after Pulte Home (56.34%) and The Limited (54.04%).

—Margaret A. Elliott

Having lots of capital has become crucial in trading and underwriting. To get it, many brokerage firms restructured and some sold out to companies with deeper pockets. Donaldson Lufkin & Jenrette, No. 19 among diversified financial companies a year ago, was swallowed by the Equitable Life Assurance Society, owner of the third-largest life insurance company. Bear Stearns joined the diversified financial company list, at the No. 8 spot, after it went public. American Express, No. 2 behind the Federal National Mortgage Association, spun off its troubled Fireman's Fund insurance unit, which became No. 19.

PROPERTY and casualty insurers, which dominate the list of diversified financial companies, suffered record operating losses for the second year in a row. The prices of P&C insurance premiums rose 21% last year, more than double the 1984 increase, and investment income was up 11.3%. But those gains were not enough to cover heavy underwriting losses. The hardest blow came from Mother Nature. Six hurricanes struck the U.S. mainland last year for only the second time in this century (the last time: 1916). And some insurers were clobbered by rising claims on policies covering casualty losses in past years. Cigna, No. 6 among diversified financial companies, had to salt away $1.2 billion in added reserves for claims from past years. It ended the year with a $732-million loss, the biggest on the Service 500.

Profits of the 100 biggest diversified service companies also sank. Stricken by the drop in oil prices, energy service companies such as Halliburton went from record profits in 1984 to big losses in 1985. The earnings of hospital companies on the diversified services list climbed 17%, although investors sold their stocks in droves after Hospital Corp. of America told security analysts in October that it could no longer maintain its pistol-hot 20%-a-year earnings growth. Its profits rose 14% in 1985. Hospital occupancies have been declining since corporations began making employees pay more of their health care costs through larger insurance deductibles and higher copayments. The drop in hospital use has boosted business for outpatient clinics and for nursing homes.

General business services, which range from temporary-employee agencies to computer-leasing companies, thrived last year as corporations contracted out more activities to stay lean and flexible. According to the U.S. Bureau of Labor Statistics, payments for business services grew at an 8% annual rate from 1978 to 1985, creating over two million jobs. Kelly Services, the temporary-help company based in Troy, Michigan, had revenue and earnings gains of 18% and 22% respectively last year. Kelly's total return to investors was 118.63% and averaged 46.22% over the past ten years, the fifth-highest ten-year total return on the Service 500.

Transportation companies had a tough year all around. Profits of the 50 biggest dropped 18%, more than any other Service 500 category. Most of the decline fell on railroads, which lost business to trucks and were forced to cut prices. Revenue per carload dropped nearly 5%, according to Graeme Ligerwood, a rail analyst for the First Boston investment firm. "The drop in energy prices will probably be a bigger boon to truckers than to rails because fuel is a bigger percentage of a trucker's cost," she says. This year flagging auto production, high coal inventories, and weak grain exports will bring even worse conditions for railroads.

The weather was equally stormy for shipping companies. Fierce price wars in the Pacific reduced rates there 35%, torpedoing profits for Sea-Land, American President Cos., and McLean Industries. Price wars also took their toll on airlines, sparking a major shakeout and consolidation. United Airlines acquired Pan Am's Pacific routes. Northwest Airlines agreed to buy Republic Airlines. Texas Air signed a deal to take over Eastern Air Lines. And in February of this year TWA, the airline that raider Carl Icahn surely wishes he had lost, agreed to buy Ozark Holdings, a regional carrier whose profits dropped 95% last year. Deregulation wreaked havoc in the trucking industry as well, but big truckers gained at the expense of small. The profits of the 11 largest trucking companies rose 15% last year.

Low inflation continued to make life tough for retailers. While most stores kept inventories lean and streamlined operations, a slowdown in consumer spending eroded sales. Profits at Sears and K mart, the two biggest retailers, fell 10% and 56% respectively. The total earnings of the 50 largest retailers slipped 7%.

Supermarkets have come under tremendous pressure as intense competition and a disinflation psychology have made raising food prices tough. Warehouse stores have cut into the traditional grocery business, a trend that is likely to accelerate this year. Even so, the profits of the supermarket chains among the top 50 retailers jumped 28% last year. As with the big truckers, size helped the giants prosper with thin margins and win market share from smaller stores.

THE EXCEPTION among the supermarket chains was A&P. After subtracting an extraordinary gain from pulling excess funds out of its pension plan, A&P's earnings went nowhere. The chain hopes to improve performance this year by appealing to high-income, two-career families with fancy stores that offer such amenities as gourmet bakeries and butcher counters. It hopes that affluent, busy customers will pay up for better quality, less hassle, and more convenience.

GTE and the seven regional Bell companies continue to lead the list of the largest utilities. GTE spun off Sprint, its hemorrhaging long-distance service, into a joint venture last year, taking a $1.3-billion charge against earnings. As a result, GTE lost $161 million after a $1.1-billion profit in 1984. The swing helped drag total earnings for the 50 largest utilities down 8%.

The Baby Bells, as AT&T's divested regionals have been dubbed, began to develop different personalities as they entered new businesses and started competing with one another. Southwestern Bell bought a directory business for $120 million and recently launched a rival Yellow Pages in New York City, much to the dismay of Nynex, which was used to having the business to itself. Pacific Telesis signed an agreement to spend $431 million for a cellular mobile telephone company. And American Information Technologies bought ADR, a computer software company, for $217 million.

Many service companies increased market shares last year by overpowering smaller companies or buying them out. According to W.T. Grimm, a management research firm in Chicago, the value of mergers and acquisitions among service companies jumped 78% to $66 billion. Survival of the biggest has become the new law of the deregulated, low-inflation economy. But size alone doesn't ensure profits to match. Indeed, many service companies are beset with eroding profit margins, which means they have to generate ever more revenues just to keep profits from shrinking. That's a treadmill they would love to get off. ■

THE MOST BATTERED INDUSTRY

GUSHING RED IN OIL COUNTRY

The dizzying drop in oil prices this year may be the hardest blow yet to the already staggering energy services industry. Previous oil price declines, which now look comparatively tame, had already brought a precipitous drop in U.S. drilling activity; from more than 4,500 rigs in 1981 to 1,915 at the beginning of this year. But by May the number of rigs drilling for oil was down to a post-World War II low of 809, and the eventual recovery for oil service companies was looking ever more distant.

Halliburton, No. 9 among diversified service companies, lost $339.3 million last year, the first deficit in its 66-year history, partly because it wrote down equipment used to build offshore drilling platforms. The year would have been a downer even without the special charge; Halliburton's operating earnings fell 82%. Halliburton had been counting on winning a contract to build Shell Oil's Bullwinkle drilling platform in the Gulf of Mexico, which will be the largest in the world. But its marine construction subsidiary, Brown & Root Marine, lost the contract to a newly formed company last June.

Write-downs of drilling rigs helped knock other diversified service companies into the loss column last year. Enserch lost $38.5 million, partly because it reduced the book value of workover and maintenance rigs used to clean and repair damaged wells. Much of GATX's $45.5-million loss came from a $35-million after-tax write-down of rigs and other equipment it leases to drillers.

Another oil patch loser, Tesoro Petroleum, may have better reason for optimism than most. Although the company lost $87 million last year and continues to revalue its oil and gas reserves downward, its main business is marketing petroleum products. With a newly expanded refinery in Alaska and the purchase last year of Phillips Petroleum's West Coast wholesale marketing operation, Tesoro can take advantage of cheap crude.

—Margaret A. Elliott

THE 100 LARGEST DIVERSIFIED SERVICE COMPANIES

RANKED BY SALES

RANK 1985	RANK 1984	COMPANY	SALES[1] $ THOUSANDS	ASSETS $ THOUSANDS	ASSETS RANK	NET INCOME $ THOUSANDS	NET INCOME RANK	STOCKHOLDER EQUITY $ THOUSANDS	RA
1	1	**Phibro-Salomon** (New York)	27,896,000	88,601,000	1	557,000	1	2,954,000	
2	3	**InterNorth** (Omaha)	10,727,253	9,892,727	3	(14,055)‡	76	1,650,345	
3	2	**RCA** (New York)	9,991,700	6,705,000	4	369,100	4	2,549,800	
4	3	**Union Pacific** (New York)[2]	7,797,894	10,709,838	2	501,207	2	4,356,151	
5	5	**Fleming Companies** (Oklahoma City)	7,094,991	1,164,876	39	60,082	28	446,894	
6	4	**Super Valu Stores** (Eden Prairie, Minn.)[3]	6,587,527	1,173,803	38	107,212	21	469,170	
7	10	**McKesson** (San Francisco)[4]	4,999,592	1,545,409	31	64,954	27	558,622	
8	8	**CBS** (New York)	4,785,500	3,508,700	9	27,400	44	481,300	
9	6	**Halliburton** (Dallas)	4,778,695	4,661,963	6	(339,276)‡	87	2,857,854	
10	9	**Fluor** (Irvine, Calif.)[5]	4,168,444	2,796,364	16	(633,324)	88	1,033,904	
11	13	**Hospital Corp. of America** (Nashville)	4,151,715	6,259,060	5	338,613**	5	2,092,133	
12	●	**Gulf & Western Industries** (New York)[5]	3,844,100	4,064,100	7	247,800	7	1,737,700	
13	16	**Alco Standard** (Valley Forge, Pa.)[6]	3,823,053	1,287,756	35	51,362	30	441,953	
14	15	**ARA Holding** (Philadelphia)[6,7]	3,535,933	1,693,565	29	N.A.		106,207	
15	77	**Electronic Data Systems** (Dallas)[8]	3,406,400	1,595,200	30	189,800	10	530,600	
16	●	**ENSERCH** (Dallas)	3,391,035	3,357,844	11	(38,508)	82	1,028,002	
17	11	**American Broadcasting** (New York)[9]	3,298,500	N.A.		N.A.		N.A.	
18	18	**Wetterau** (Hazelwood, Mo.)[4]	3,081,101	556,322	62	26,556	45	171,963	
19	21	**Ryder System** (Miami)	2,905,287	3,740,632	8	125,316	18	973,335	
20	22	**Dun & Bradstreet** (New York)	2,771,669	2,672,993	18	294,708	6	1,355,714	
21	24	**Sysco** (Houston)[10]	2,627,750	681,121	58	50,325	31	339,051	
22	●	**Charter** (Jacksonville, Fla.)	2,571,916	647,234	59	1,274**	71	(147,160)	
23	27	**Greyhound** (Phoenix)	2,561,663	2,931,491	13	120,088	19	1,160,258	
24	28	**National Medical Enterprises** (Los Angeles)[11]	2,530,100	2,841,900	15	149,000	16	937,100	
25	19	**Associated Milk Producers** (San Antonio)	2,464,583	374,771	73	N.A.[12]		115,107	
26	23	**Amfac** (San Francisco)	2,441,421	1,312,644	34	17,912	53	423,581	
27	34	**Bergen Brunswig** (Orange, Calif.)[13]	2,434,861	628,533	60	23,270	50	159,555	
28	●	**National Intergroup** (Pittsburgh)[14]	2,370,350	2,018,526	28	(15,230)	77	911,583	
29	25	**Genuine Parts** (Atlanta)	2,332,481	976,513	45	126,241	17	729,231	
30	17	**Tesoro Petroleum** (San Antonio)[8]	2,293,056	897,709	49	(87,028)	84	336,981	
31	30	**American Medical International** (Beverly Hills, Calif.)[13]	2,256,359	3,433,048	10	163,792	13	1,010,551	
32	●	**Warner Communications** (New York)	2,234,891	2,285,526	22	195,305	9	525,295	
33	31	**Humana** (Louisville)[13]	2,188,390	2,719,390	17	216,220	8	902,850	
34	35	**Turner** (New York)	2,149,228	752,135	54	11,068	61	65,643	
35	38	**MCA** (Universal City, Calif.)	2,098,525	2,254,410	24	149,959	15	1,400,761	
36	29	**Morrison Knudsen** (Boise)	2,082,796	936,174	46	41,546	36	392,543	
37	37	**Walt Disney Productions** (Burbank, Calif.)[6]	2,015,429	2,897,285	14	173,491	11	1,184,888	
38	20	**IU International** (Wilmington, Del.)	1,941,775	999,096	44	(173,531)	86	160,453	
39	54	**Price** (San Diego)[13]	1,871,015	380,635	72	45,963	34	161,291	
40	●	**Roundy's** (Pewaukee, Wis.)	1,806,724	285,829	83	N.A.[12]		34,789	
41	33	**Holiday** (Memphis)[15]	1,804,472	2,447,570	20	150,023	14	662,485	
42	42	**Beverly Enterprises** (Pasadena, Calif.)	1,690,741	2,020,173	27	59,815	29	597,224	
43	46	**Waste Management** (Oak Brook, Ill.)	1,625,428	2,260,767	23	171,553	12	1,137,203	
44	32	**Castle & Cooke** (Honolulu)[10]	1,600,553	1,025,774	40	(28,587)	79	292,392	
45	39	**Avnet** (New York)[10]	1,534,172	916,766	48	49,384	32	638,497	
46	52	**Subaru of America** (Pennsauken, N.J.)[5]	1,502,320	422,188	71	77,058	25	266,643	
47	48	**Super Food Services** (Dayton, Ohio)[13]	1,397,395	162,851	97	9,173	64	59,915	
48	45	**Eastern Gas & Fuel Associates** (Boston)	1,330,876	1,209,608	37	(37,008)	81	442,805	
49	50	**Nash-Finch** (St. Louis Park, Minn.)	1,323,294	239,767	87	12,006	57	107,384	
50	47	**Bally Manufacturing** (Chicago)	1,294,832	1,528,744	32	25,637	47	407,659	

THE DEFINITIONS AND CONCEPTS UNDERLYING THE FIGURES IN THIS DIRECTORY ARE EXPLAINED ON PAGE 146.

● Not on last year's list.

N.A. Not available.

* Average for the year; see the reference to "employees" on page 146.

** Reflects an extraordinary credit of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

‡ Reflects an extraordinary charge of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[1] Net sales include all operating revenues and revenues from discontinued operations when they are published. All figures are for the fiscal year that ended December 31, 1985, unless otherwise noted. Sales of subsidiaries are included when they are consolidated. All companies on the list must have derived more than 50% of their revenues from non-manufacturing businesses and/or non-mining businesses. Excluded (but eligible for the lists that follow) are com-

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS			
		SALES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE	
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK
6,300	53	2.0	43	18.9	16	3.78	1.48	0.92	15.18	28	38.01	39	29.36	16
11,911	41	—		—		(1.42)‡	5.61	1.45	—		12.59	66	17.05	57
87,000	4	3.7	31	13.7§	42	4.04	3.30	1.40	11.18	36	69.52	15	17.67	54
44,419*	9	6.4	16	10.8§	50	4.18	4.01	1.60	10.04	41	37.02	41	14.85	61
15,600	30	0.9	61	13.4	43	2.87	2.70	0.95	11.69	35	16.79	60	24.13	34
24,626	19	1.6	49	22.9	10	2.90	2.08	0.36	23.20	16	44.33	32	33.67	12
13,200	35	1.3	52	11.6	47	3.60	3.78	2.70	2.92	54	44.66	31	21.41	42
25,841	18	0.6	66	4.6§	65	0.81	7.15	4.30	(15.37)	63	64.68	20	14.49	63
64,955	6	—		—		(3.12)‡	2.87	1.92	—		2.97	73	4.61	77
26,958	17	—		—		(8.01)	0.01	0.96	—		7.64	70	5.40	76
89,500	3	8.2	12	16.2	25	3.75**	3.35	0.45	23.62	14	(3.93)	81	25.69	28
18,500	27	6.5	15	14.2§	37	3.31	3.57	2.61	2.40	56	79.94	12	19.32	51
18,400	28	1.3	50	11.4§	48	2.32	2.85	1.39	5.22	49	29.80	50	23.56	37
112,000*	1	—		—		N.A.	5.19	3.25	—		—		—	
40,000	11	5.6	20	35.8	3	N.A.	1.35	0.30	—		—		—	
20,000	23	—		—		(1.12)	1.67	1.35	—		13.05	65	14.55	62
N.A.		—		—		N.A.	6.71	0.66	—		94.72	5	29.10	18
10,525	43	0.9	60	15.4	28	2.51	2.05	1.29	6.89	44	61.34	23	18.28	53
27,459	16	4.3	27	12.9	45	2.60	2.86	0.34	22.58	19	41.03	36	28.23	21
58,352	7	10.6	4	21.7	13	3.88	6.86**	0.79	17.25	25	31.21	48	23.76	35
9,100	45	1.9	46	14.8	33	2.35	2.14	0.55	15.61	27	34.01	46	29.38	15
2,700	84	0.1	72	—		(0.72)	(45.67)	0.19‡	—		137.50	2	(0.22)	79
36,942*	12	4.7	25	10.3§	53	2.48	2.56	1.87	2.86	55	39.63	37	17.19	56
68,800	5	5.9	18	15.9	26	1.98	1.74	0.20	25.85	10	(2.30)	80	43.03	7
3,516	74	—		—		N.A.	N.A.	N.A.	—		—		—	
22,550	21	0.7	63	4.2	67	1.08	(0.93)	1.70	(4.44)	61	36.77	42	11.16	68
3,500	75	1.0	57	14.6	35	1.83	1.45	0.29	20.22	19	43.82	34	30.23	14
4,612	66	—		—		(1.44)	(0.09)**	3.10	—		(1.39)	79	2.09	78
13,220	34	5.4	22	17.3	19	2.34	2.20	0.83	10.97	38	24.48	55	12.57	65
2,800	83	—		—		(7.01)	0.59	4.04	—		(1.27)	78	(0.81)	80
4,300	69	7.3	13	16.2	24	1.94	1.64	0.22	24.42	11	(0.28)	76	32.53	13
4,900	64	8.7	8	37.2	2	2.87	(9.73)	0.15	34.42	5	83.44	10	25.04	30
43,800	10	9.9	6	24.0	8	2.19	1.96	0.10	36.54	4	36.17	44	46.88	3
2,900	82	0.5	67	16.9	21	2.64	3.09	0.83	12.27	33	18.27	59	27.93	25
16,600	29	7.2	14	10.7	51	2.02	1.31	1.38	3.86	53	89.53	8	22.86	38
23,340	20	2.0	44	10.6	52	3.85	4.13	1.26	11.79	34	44.27	33	28.10	24
30,000	15	8.6	9	14.6	34	5.15	2.73	1.91	10.41	40	91.50	6	10.89	69
22,000	22	—		—		(6.43)	0.27	2.50	—		(6.17)	84	16.08	58
5,404	57	2.5	39	28.5	5	2.03	1.27	N.A.	—		67.66	17	—	
5,172	61	—		—		N.A.	N.A.	N.A.	—		—		—	
46,772	8	8.3	11	22.7	11	5.38	3.59	1.37	14.66	30	38.58	38	18.51	52
105,000	2	3.5	33	10.0	55	2.14	1.80	(0.15)	—		16.54	61	43.59	5
19,800	24	10.6	5	15.1	31	1.72	1.46	0.15	27.63	9	64.42	21	43.17	6
35,400*	13	—		—		(1.43)	(3.03)	1.62	—		14.03	64	7.83	72
9,000	46	3.2	35	7.7	60	1.39	2.44	0.86	4.87	51	(0.18)	75	25.41	29
860	96	5.1	23	28.9	4	12.55	9.84	0.25**	47.93	3	35.08	45	—	
1,860	89	0.7	64	15.2§	30	2.63	2.10	0.65	15.06	29	57.83	25	25.73	20
6,800	52	—		—		(1.61)	0.73	2.73	—		(0.54)	77	9.24	70
5,890	55	0.9	59	11.2	49	2.36	2.30	1.43	5.16	50	75.28	14	—	
19,637	25	2.0	45	6.3	63	0.95	(3.86)	0.33	10.99	37	43.78	35	20.13	49

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panies deriving more than 50% of their revenues solely from banking, life insurance, finance, savings, retailing, transportation, or utilities.

[2] Company was No. 3 among last year's Largest Transportation Companies.

[3] Figures are for fiscal year ended February 28, 1985.

[4] Figures are for fiscal year ended March 31, 1985.

[5] Figures are for fiscal year ended October 31, 1985.

[6] Figures are for fiscal year ended September 30, 1985.

[7] Name changed from ARA Services December 26, 1984, when company was acquired by management.

[8] Wholly owned by General Motors (No. 1 on the FORTUNE 500).

[9] Company was acquired by Capital Cities Communications (No. 306 on the FORTUNE 500) January 3, 1986.

[10] Figures are for fiscal year ended June 30, 1985.

[11] Figures are for fiscal year ended May 31, 1985.

[12] Cooperatives provide only net margin figures, which are not comparable with the net income figures in these listings.

[13] Figures are for fiscal year ended August 31, 1985.

[14] Company was No. 159 on last year's FORTUNE 500.

[15] Formed as a holding company for Holiday Inns May 15, 1985.

RANK		COMPANY	SALES[1]	ASSETS		NET INCOME		STOCKHOLD EQUITY
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	$ THOUSANDS
51	49	**Pittston** (Greenwich, Conn.)	1,250,800	924,510	47	277	73	500,704
52	44	**Foster Wheeler** (Livingston, N.J.)	1,227,758	1,016,764	42	26,019	46	408,277
53	51	**Centex** (Dallas)[4]	1,215,174	846,363	51	43,134	35	301,954
54	61	**Indiana Farm Bureau Cooperative** (Indianapolis)[13]	1,185,829	226,992	89	N.A.[12]		73,463
55	60	**Browning-Ferris Industries** (Houston)[6]	1,144,509	999,884	43	111,828	20	550,256
56	41	**Whittaker** (Los Angeles)[5]	1,130,478	796,118	53	19,867	52	390,162
57	57	**W.W. Grainger** (Skokie, Ill.)	1,128,991	717,800	55	71,775	26	518,234
58	40	**Farm House Foods** (Milwaukee)[4]	1,118,891	190,102	93	4,397	68	26,775
59	58	**Di Giorgio** (San Francisco)	1,093,126	346,902	76	11,150	60	118,955
60	59	**Universal Leaf Tobacco** (Richmond, Va.)[10]	1,070,389	488,257	67	46,386	33	261,017
61	55	**Dairymen** (Louisville)[13]	1,060,182	251,499	86	N.A.[12]		87,779
62	62	**Fischbach** (New York)[6]	1,039,046	533,294	65	(10,447)‡	75	161,852
63	65	**Automatic Data Processing** (Roseland, N.J.)[10]	1,030,015	1,018,040	41	87,850	24	558,153
64	53	**Commercial Metals** (Dallas)[13]	1,019,159	282,514	84	9,326	63	133,695
65	●	**Ace Hardware** (Oak Brook, Ill.)	1,008,973	307,596	80	N.A.[12]		102,795
66	63	**Gelco** (Eden Prairie, Minn.)[16]	1,003,929	2,619,561	19	22,528	51	222,897
67	68	**ServiceMaster Industries** (Downers Grove, Ill.)	1,002,213	132,758	99	32,705	40	75,812
68	95	**Countrymark** (Columbus, Ohio)[13,17]	986,077	197,103	91	N.A.[12]		55,029
69	71	**John Blair** (New York)	981,512	553,581	63	(29,151)	80	98,249
70	66	**Univar** (Seattle)[3]	951,957	303,348	81	15,810	55	95,881
71	74	**Perini** (Framingham, Mass.)	951,424	322,599	78	(17,932)	78	82,180
72	64	**NIKE** (Beaverton, Ore.)[11]	946,371	503,966	66	10,270	62	271,968
73	●	**Culbro** (New York)	944,630[18]	359,274	75	11,532	58	148,658
74	56	**U.S. Home** (Houston)	922,081	846,674	50	(8,978)	74	281,481
75	98	**Kaufman & Broad** (Los Angeles)[19]	921,433	2,200,577	26	38,891**	38	280,774
76	70	**Dravo** (Pittsburgh)	892,738	542,084	64	3,240	70	199,031
77	79	**Kelly Services** (Troy, Mich.)	876,437	178,598	95	32,615	41	129,058
78	●	**Rykoff-Sexton** (Los Angeles)[20]	852,951	225,157	90	11,209	59	85,799
79	76	**Blount** (Montgomery, Ala.)[3]	847,045	691,724	56	24,317	48	127,190
80	85	**Parker Pen** (Janesville, Wis.)[3]	843,713	330,749	77	5,383	66	118,171
81	82	**Berkshire Hathaway** (Omaha)	832,202	3,180,718	12	435,815	3	1,885,330
82	81	**Sunkist Growers** (Sherman Oaks, Calif.)[5]	821,764	228,885	88	N.A.[12]		58,500
83	83	**Pioneer Hi-Bred International** (Des Moines)[13]	821,075	691,710	57	102,592	22	461,813
84	69	**GATX** (Chicago)	792,400	2,391,800	21	(45,500)	83	379,200
85	72	**Pacific Gamble Robinson** (Kirkland, Wash.)	782,547	134,773	98	700	72	52,471
86	73	**Pulte Home** (West Bloomfield, Mich.)	773,280	443,477	68	23,706	49	169,354
87	84	**Computer Sciences** (El Segundo, Calif.)[4]	723,493	431,403	70	27,718	43	186,221
88	●	**FoxMeyer** (Aurora)[4]	717,054	318,934	79	8,995	65	110,140
89	●	**PHH Group** (Hunt Valley, Md.)[20]	700,077	2,216,286	25	40,775	37	239,097
90	88	**Hilton Hotels** (Beverly Hills, Calif.)	684,417	1,225,605	36	100,163	23	651,446
91	87	**Southern States Cooperative** (Richmond, Va.)[10]	676,640	291,567	82	N.A.[12]		139,497
92	93	**Dynalectron** (McLean, Va.)	670,524	277,263	85	3,291	69	103,871
93	92	**Interpublic Group of Companies** (New York)	668,455	801,659	52	36,557	39	207,820
94	75	**Kay** (Alexandria, Va.)	666,342	440,972	69	14,011	56	49,980
95	94	**Caesars World** (Los Angeles)[16]	660,798	619,477	61	31,812	42	226,475
96	●	**Hardware Wholesalers** (Fort Wayne, Ind.)[10]	655,666	192,659	92	N.A.[12]		70,330
97	86	**MGM/UA Entertainment** (Culver City, Calif.)[13]	655,170	1,426,897	33	(115,759)	85	265,410
98	99	**Anixter Bros.** (Skokie, Ill.)[16]	650,949	365,339	74	17,456	54	204,079
99	●	**Bindley Western Industries** (Indianapolis)	626,900	164,697	96	5,150	67	40,991
100	●	**American Hardware Supply** (Butler, Pa.)[10]	621,366	181,102	94	N.A.[12]		53,511
		TOTALS	228,262,735	233,454,941		4,896,149		53,233,990

● Not on last year's list.

N.A. Not available.

* Average for the year; see the reference to "employees" on page 146.

** Reflects an extraordinary credit of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

‡ Reflects an extraordinary charge of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

[16] Figures are for fiscal year ended July 31, 1985.

[17] Name changed from Landmark May 1, 1985.

[18] The sales figure does not include excise taxes and is at least 5% lower for this reason.

[19] Figures are for fiscal year ended November 30, 1985.

[20] Figures are for fiscal year ended April 30, 1985.

RS'	EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS			
			SALES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE	
ANK	NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK
32	14,283	31	0.0	73	0.1	72	0.01	(0.69)	5.36	(46.66)	65	28.57	51	(5.27)	81
40	13,100	36	2.1	41	6.4	62	0.76	1.03	0.44	5.69	47	18.52	58	21.11	43
47	4,500	67	3.6	32	14.3	36	2.20	2.55	0.25	24.13	13	12.09	67	20.43	47
87	853	97	—		—		N.A.	N.A.	N.A.	—		—		—	
28	12,635	39	9.8	7	20.3	14	1.60	1.30	0.10	31.95	6	77.21	13	37.18	9
43	8,700	47	1.8	47	5.1	64	1.40	3.01	0.10	30.20	7	(6.14)	83	24.61	31
31	5,195	60	6.4	17	13.9	41	2.47	2.38	0.72	13.12	32	36.50	43	14.37	64
98	1,400	93	0.4	69	16.4	23	0.52	0.41	0.27	6.77	45	67.22	18	19.67	50
73	4,500	68	1.0	56	9.4	56	1.72	(0.98)	0.28**	19.90	21	45.87	30	22.54	39
54	14,000*	33	4.3	26	17.8	17	2.69	2.21	1.48	6.12	46	27.84	54	24.39	33
83	5,000*	63	—		—		N.A.	N.A.	N.A.	—		—		—	
64	13,000	38	—		—		(2.69)‡	1.12‡	3.18	—		(13.61)	86	6.79	74
27	18,500	26	8.5	10	15.7	27	2.47	2.14	0.49	17.44	24	53.46	26	17.65	55
70	3,138	80	0.9	58	7.0	61	1.42	1.50	1.57	(1.01)	59	29.96	49	20.82	45
80	2,096	88	—		—		N.A.	N.A.	N.A.	—		—		—	
57	7,004	51	2.2	40	10.1	54	1.63	1.12	0.71	8.61	42	21.55	57	15.78	59
86	8,410	48	3.3	34	43.1	1	1.00	0.93	0.12	23.23	15	28.46	52	29.26	17
92	1,002	94	—		—		N.A.	N.A.	N.A.	—		—		—	
81	8,090	49	—		—		(3.63)	1.31	0.40	—		45.94	29	34.54	11
82	3,154	79	1.7	48	16.5	22	2.85	1.66	2.26	2.33	57	51.82	28	15.38	60
85	5,400*	58	—		—		(5.64)	0.60	1.10	—		9.90	69	27.23	26
51	4,100	70	1.1	55	3.8	68	0.27	1.07	N.A.	—		85.82	9	—	
68	6,200	54	1.2	54	7.8	59	2.73	4.35**	1.20	8.57	43	83.07	11	24.50	32
49	3,564	72	—		—		(0.26)	(1.27)	(0.14)	—		(8.00)	85	12.56	66
50	2,537	86	4.2	28	13.9	40	2.81**	2.97	(0.10)	—		11.58	68	11.85	67
60	7,978	50	0.4	70	1.6	70	0.21	(1.49)	0.85	(13.05)	62	53.25	27	7.36	73
71	3,075	81	3.7	30	25.3	7	2.01	1.65	0.23	24.24	12	118.63	3	46.22	4
84	3,525	73	1.3	51	13.1	44	1.79	1.32	1.11	4.86	52	32.34	47	20.85	44
72	10,233	44	2.9	37	19.1	15	2.03	1.83	0.37	18.64	22	5.37	72	41.27	8
74	5,735	56	0.6	65	4.6	66	0.32	0.70	0.31	0.36	58	66.43	19	22.39	40
6	5,200	59	52.4	1	23.1	9	379.99	129.82	4.79	54.86	1	90.59	7	50.41	2
91	1,416	92	—		—		N.A.	N.A.	N.A.	—		—		—	
35	3,388	76	12.5	3	22.2	12	3.21	2.17	0.71	16.34	26	22.15	56	20.47	46
44	5,023	62	—		—		(3.80)	2.37	3.50	—		6.35	71	9.18	71
94	4,700*	65	0.1	71	1.3	71	0.35	0.71	3.30	(20.09)	64	2.00	74	6.10	75
63	1,500	91	3.1	36	14.0	39	0.90	0.65	0.01	54.43	2	(25.22)	87	56.34	1
61	14,100	32	3.8	29	14.9	32	2.02	1.32	0.26	22.75	17	139.29	1	23.68	36
76	1,811	90	1.3	53	8.2	58	1.56	1.27	N.A.	—		—		—	
55	3,169	78	5.8	19	17.1	20	2.56	2.30	0.50	17.62	23	58.76	24	25.88	27
23	34,000	14	14.6	2	15.4	29	4.03	4.33	1.43	10.88	39	16.01	63	28.19	22
69	3,200	77	—		—		N.A.	N.A.	N.A.	—		—		—	
79	13,000	37	0.5	68	3.2	69	0.34	1.23	0.46	(2.98)	60	37.05	40	20.14	48
58	12,200	40	5.5	21	17.6	18	3.35	3.03	0.96	13.33	31	28.23	53	21.98	41
95	3,855	71	2.1	42	28.0	6	2.76	0.53	0.45**	19.91	20	69.52	16	28.86	19
56	10,905	42	4.8	24	14.1	38	1.07	0.66	0.09	28.25	8	62.03	22	36.85	10
88	682	98	—		—		N.A.	N.A.	N.A.	—		—		—	
53	2,600*	85	—		—		(2.33)	0.69	N.A.	—		101.23	4	—	
59	2,500*	87	2.7	38	8.6	57	0.96	0.82	0.57	5.40	48	16.30	62	28.15	23
96	150	99	0.8	62	12.6	46	0.79	0.72	N.A.	—		(4.40)	82	—	
93	987	95	—		—		N.A.	N.A.	N.A.	—		—		—	
	1,618,014														

RANK		COMPANY	ASSETS[1]	DEPOSITS		LOANS[2]		EMPLOYEES	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	NUMBER	RANK
1	1	**Citicorp** (New York)	**173,597,000**	**104,959,000**	1	**115,264,000**	1	**81,300**	2
2	2	**BankAmerica Corp.** (San Francisco)	**118,541,125**	**94,210,950**	2	**82,742,252**	2	**83,299**	1
3	3	**Chase Manhattan Corp.** (New York)	**87,685,442**	**61,353,049**	3	**61,022,855**	3	**46,450**	3
4	4	**Manufacturers Hanover Corp.** (New York)	**76,525,769**	**46,261,146**	4	**57,652,292**	4	**32,218**	5
5	5	**J.P. Morgan & Co.** (New York)	**69,375,000**	**39,845,000**	5	**36,278,000**	7	**13,506**	15
6	6	**Chemical New York Corp.**	**56,990,174**	**34,505,315**	7	**38,528,208**	5	**19,691**	8
7	7	**Security Pacific Corp.** (Los Angeles)	**53,503,239**	**32,873,391**	8	**36,510,012**	6	**30,358***	6
8	9	**Bankers Trust New York Corp.**	**50,581,041**	**28,723,505**	9	**24,793,354**	9	**10,543**	22
9	8	**First Interstate Bancorp** (Los Angeles)	**48,991,038**	**35,554,486**	6	**32,283,751**	8	**34,303***	4
10	10	**First Chicago Corp.**	**38,892,506**	**27,147,535**	10	**23,758,725**	11	**14,276**	12
11	11	**Mellon Bank Corp.** (Pittsburgh)	**33,406,195**	**18,582,625**	13	**21,957,190**	12	**15,807***	10
12	12	**Continental Illinois Corp.** (Chicago)	**30,528,000**	**17,759,000**	14	**20,054,000**	13	**9,334**	27
13	13	**Wells Fargo & Co.** (San Francisco)	**29,429,394**	**19,501,300**	11	**24,196,653**	10	**14,000**	14
14	16	**Bank of Boston Corp.**	**28,296,340**	**19,214,058**	12	**19,307,661**	14	**20,000**	7
15	14	**First Bank System** (Minneapolis)	**25,484,355**	**16,039,194**	18	**14,254,800**	19	**9,575***	26
16	17	**Marine Midland Banks** (Buffalo)[3]	**23,385,612**	**16,593,427**	17	**15,159,385**	15	**11,867***	19
17	19	**RepublicBank Corp.** (Dallas)	**23,205,593**	**15,764,377**	19	**14,941,137**	17	**8,686**	32
18	22	**MCorp** (Dallas)	**22,586,271**	**17,583,421**	15	**15,079,738**	16	**11,694**	21
19	18	**InterFirst Corp.** (Dallas)	**22,071,000**	**17,504,000**	16	**14,826,000**	18	**9,287**	28
20	23	**Irving Bank Corp.** (New York)	**21,650,661**	**14,026,275**	25	**12,564,803**	22	**9,700**	25
21	20	**Norwest Corp.** (Minneapolis)	**21,418,600**	**14,336,800**	23	**13,143,700**	20	**15,300**	11
22	21	**Texas Commerce Bancshares** (Houston)	**20,076,000**	**14,612,000**	22	**13,087,000**	21	**8,266***	37
23	25	**NCNB Corp.** (Charlotte, N.C.)	**19,754,317**	**13,950,398**	26	**11,948,106**	25	**9,981**	24
24	37	**SunTrust Banks** (Atlanta)[4]	**19,405,563**	**14,728,105**	21	**10,986,141**	28	**15,873**	9
25	15	**Crocker National Corp.** (San Francisco)[5]	**19,208,000**	**14,981,000**	20	**11,956,000**	24	**12,000**	17
26	27	**PNC Financial Corp** (Pittsburgh)	**18,777,723**	**11,826,293**	32	**9,937,308**	30	**9,037***	30
27	26	**Bank of New York Co.**	**18,486,200**	**12,369,021**	30	**12,220,656**	23	**7,616**	38
28	55	**Bank of New England Corp.** (Hartford)[7]	**17,804,000**	**14,055,000**	24	**11,397,000**	26	**13,115**	16
29	42	**First Wachovia Corp.** (Winston-Salem, N.C.)[9]	**17,706,535**	**12,674,943**	29	**10,557,465**	29	**11,796**	20
30	24	**First City Bancorp. of Texas** (Houston)	**16,819,100**	**12,902,685**	28	**11,123,765**	27	**8,644**	33
31	28	**NBD Bancorp** (Detroit)	**16,675,877**	**12,024,673**	31	**8,555,507**	33	**9,074**	29
32	50	**First Union Corp.** (Charlotte, N.C.)	**16,567,276**	**9,885,309**	33	**9,053,494**	32	**11,903**	18
33	30	**Republic New York Corp.**	**15,323,510**	**9,729,221**	35	**3,341,012**	76	**2,650**	96
34	29	**Barnett Banks of Florida** (Jacksonville)	**14,829,078**	**13,082,311**	27	**9,630,970**	31	**14,107**	13
35	44	**Citizens & Southern Georgia Corp.** (Atlanta)	**13,590,529**	**9,651,877**	36	**8,321,945**	34	**10,355**	23
36	32	**First Fidelity Bancorp.** (Newark)[11]	**12,620,015**	**9,778,708**	34	**7,034,719**	38	**8,500**	35
37	31	**National City Corp.** (Cleveland)	**12,505,476**	**9,448,398**	37	**7,579,330**	35	**8,938**	31
38	34	**CoreStates Financial Corp** (Philadelphia)	**11,080,230**	**7,838,513**	45	**7,061,587**	37	**7,016**	42
39	33	**Southeast Banking Corp.** (Miami)	**11,052,012**	**8,337,897**	38	**6,618,549**	41	**6,932**	43
40	38	**Banc One Corp.** (Columbus, Ohio)	**10,823,485**	**8,140,636**	40	**6,598,079**	42	**8,595**	34
41	53	**Midlantic Banks** (Edison, N.J.)	**10,354,933**	**8,069,144**	43	**6,292,034**	44	**7,168**	41
42	36	**Allied Bancshares** (Houston)	**10,245,507**	**8,171,034**	39	**7,258,811**	36	**3,580**	85
43	40	**Valley National Corp.** (Phoenix)	**9,930,532**	**8,136,820**	41	**6,699,767**	39	**7,262**	40
44	41	**National Westminster Bank USA** (New York)[12]	**9,796,328**	**7,910,161**	44	**6,323,862**	43	**4,700**	62
45	35	**Comerica** (Detroit)	**9,769,540**	**8,073,385**	42	**5,643,850**	49	**6,281**	47
46	43	**Sovran Financial Corp.** (Norfolk, Va.)	**9,671,676**	**7,227,581**	47	**6,629,710**	40	**8,326**	36
47	45	**Union Bancorp** (Los Angeles)[13]	**9,559,746**	**6,884,710**	49	**5,743,249**	47	**4,800**	59
48	39	**Harris Bankcorp** (Chicago)[14]	**9,245,095**	**6,841,346**	50	**5,290,863**	51	**4,717**	60
49	46	**Norstar Bancorp** (Albany, N.Y.)	**8,998,271**	**7,350,948**	46	**4,856,740**	55	**7,547**	39
50	67	**Society Corp.** (Cleveland)	**8,749,066**	**7,094,718**	48	**5,272,864**	52	**6,672**	44

N.A. Not available.

* Average for the year; see the reference to "employees" on page 146.

** Reflects an extraordinary credit of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[1] As of December 31, 1985.

[2] Net of unearned discount and loan loss reserve. Figure includes lease financing.

[3] Company is 51% owned by the Hongkong & Shanghai Banking Corp. (No. 22 among last year's Largest Commercial Banking Companies Outside the U.S.).

[4] Company was formed by the merger of Sun Banks (1984 rank: 37) and Trust Co. of Georgia (1984 rank: 62) July 1, 1985.

[5] Wholly owned by Midland Bank (No. 18 among last year's Largest Commercial Banking Companies Outside the U.S.).

NET INCOME		STOCKHOLDERS' EQUITY		NET INCOME AS PERCENT OF EQUITY		EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS			
									1975-85 GROWTH RATE		1985		1975-85 AVERAGE	
$ THOUSANDS	RANK	$ THOUSANDS	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK
998,000	1	7,765,000	1	12.8§	53	7.12	6.45	2.83	9.67	51	33.97	66	10.91	82
(337,215)	100	4,547,057	2	—		(2.68)	1.77	2.19	—		(8.10)	91	2.72	87
564,818	3	4,397,136	3	12.7§	54	6.39	4.50	2.71	8.96	60	62.61	19	18.17	64
407,475	4	3,547,389	5	11.5	69	8.38	7.12	4.80	5.73	75	39.79	59	13.05	79
705,400	2	4,392,000	4	16.1	15	7.81	6.07	2.38	12.62	30	71.10	11	14.81	75
390,187	5	2,819,982	6	13.8	38	7.33	6.48	2.95	9.52	52	40.47	55	21.91	47
322,847	7	2,434,333	9	13.3	48	4.35	3.96	1.10	14.77	19	28.83	75	25.53	27
371,248	6	2,495,363	8	14.9	26	5.39	4.76	1.45	13.99	21	39.98	58	25.66	25
313,058	8	2,514,112	7	12.5	56	6.84	6.16	2.13	12.36	31	29.16	74	22.58	42
168,999	16	2,090,044	10	8.1	89	2.84	1.19	2.72	0.43	86	46.64	40	11.48	81
201,695	9	1,637,182	12	11.7§	65	7.44	5.64	3.13	9.06	57	17.49	82	13.93	77
151,000**	20	1,872,000	11	8.1	90	0.53**	(26.99)	3.24	(16.57)	91	71.74	10	(0.48)	89
190,034	11	1,457,960	14	13.0	51	8.30	6.85	2.83	11.36	38	40.27	57	21.80	49
173,797	14	1,474,587	13	11.8	63	8.46	8.35	2.40	13.43	26	65.16	17	22.91	40
166,781	18	1,239,678	16	13.5	42	5.68	4.15	2.09	10.51	43	65.31	16	13.34	78
125,119	27	1,193,394	19	10.5	75	6.06	5.01	1.19	17.68	13	39.10	62	19.80	56
140,179	21	1,220,328	17	11.5	68	4.61	4.66	2.23	7.54	71	26.69	78	12.54	80
132,374	22	1,279,998	15	10.3	76	3.02	3.56	1.24	9.35	53	4.36	87	14.12	76
61,100	50	1,181,000	20	5.2	95	0.91	1.76	1.40	(4.22)	88	7.19	86	0.75	88
115,979	32	955,926	30	12.1	61	6.14	5.11	2.57	9.10	56	44.89	46	23.51	36
107,600	34	1,219,300	18	8.8	84	3.20	1.90	2.42	2.81	81	45.50	45	9.63	83
53,000	59	1,180,000	21	4.5	97	1.62	5.64	1.54	0.48	85	(24.76)	93	8.56	85
164,489	19	1,039,116	26	15.8	17	4.60	4.07	1.09	15.49	15	30.57	72	22.22	44
166,831	17	1,077,618	24	15.5	21	3.34	2.68	0.53	20.27	8	43.35	50	24.02	34
38,000**	78	1,163,000	23	3.3	99	N.A.	(15.93)	3.63	—		—		—	
187,794	12	1,167,149	22	16.1	14	3.88	3.25	1.17[6]	12.69	29	57.85	23	25.83	24
130,256	25	921,241	31	14.1	35	6.39	6.40	2.77	8.72	63	52.27	32	21.59	50
131,189	23	851,000	33	15.4	23	6.22	5.32[8]	1.75[8]	13.53	25	58.22	22	26.91	15
187,678	13	1,033,694	27	18.2	4	3.51	3.11[10]	1.25[10]	10.83	42	23.31	81	20.97	52
41,811	73	974,001	28	4.3	98	0.75	1.97	1.52	(6.85)	89	(5.43)	90	6.71	86
117,992	31	963,463	29	12.3	59	4.80	3.95	2.15	8.38	65	61.88	20	22.16	45
173,624	15	1,063,854	25	16.3	10	4.32	4.33	0.74	19.31	9	26.38	79	30.25	3
122,069	29	908,953	32	13.2§	49	3.98	3.66	1.14	13.27	27	33.78	68	28.61	5
128,267	26	827,045	34	15.5	20	3.98	3.65	0.55	21.96	6	57.46	24	30.11	4
124,588	28	805,105	35	15.5	22	2.38	2.26	0.60	14.77	18	10.64	85	17.52	67
93,795	35	758,673	38	12.4	57	3.58	3.53	1.53	8.85	62	39.19	61	22.33	43
108,447	33	736,827	39	14.7	28	4.55	3.63	1.90	9.14	55	35.36	65	17.02	71
192,000	10	781,214	36	24.6	1	6.05	3.15	1.16	17.91	12	50.72	34	27.13	13
64,913	49	551,381	48	11.8	64	3.40	3.30	1.16	11.32	39	49.66	36	18.60	63
130,362	24	772,379	37	16.2§	11	2.01	1.92	0.49	15.16	17	56.46	26	26.17	21
90,634	38	580,792	44	15.6	18	4.82	4.09	0.76	20.34	7	54.10	30	31.56	2
122,033	30	660,438	42	18.5	3	2.95	2.89	0.55	18.23	11	0.52	88	24.75	31
76,976	42	531,655	51	14.5	31	4.60	3.60	1.36	12.96	28	47.89	38	19.64	58
54,575	58	554,443	47	9.8	79	N.A.	N.A.	N.A.	—		—		—	
56,504	56	520,751	52	10.9	73	4.85	4.81	2.87	5.37	77	40.31	56	19.82	55
92,577	37	555,387	46	16.7	7	3.50	3.15	1.13	11.94	34	30.92	70	25.15	29
27,640	90	536,533	49	5.2	96	N.A.	N.A.	N.A.	—		—		—	
57,510	54	621,782	43	9.3	80	8.63	6.19	4.96	5.69	76	—		—	
93,005	36	692,564	41	13.4	43	2.54	2.37	1.15	8.21	68	68.00	14	24.98	30
60,307	51	532,422	50	11.3	71	6.01	5.43	2.65	8.51	64	56.06	27	16.35	73

[6] Figure is for Pittsburgh National.

[7] Name changed from CBT Corp. (1984 rank: 55) June 14, 1985, at time of merger with Bank of New England Corp. (1984 rank: 58).

[8] Figure is for CBT Corp.

[9] Company was formed by the merger of Wachovia Corp. (1984 rank: 42) and First Atlanta Corp. (1984 rank: 54) December 5, 1985.

[10] Figure is for Wachovia.

[11] Name changed from First National State Bancorp. November 1, 1984.

[12] Wholly owned by National Westminster Bank (No. 14 among last year's Largest Commercial Banking Companies Outside the U.S.).

[13] Wholly owned by Standard Chartered Bank (No. 41 among last year's Largest Commercial Banking Companies Outside the U.S.) and the holding company for Union Bank (1984 Rank: 45).

[14] Wholly owned by Bank of Montreal (No. 25 among last year's Largest Commercial Banking Companies Outside the U.S.).

RANK		COMPANY	ASSETS[1]	DEPOSITS		LOANS[2]		EMPLOYEES	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	NUMBER	RANK
51	49	**U.S. Bancorp** (Portland, Ore.)	8,349,721	5,166,798	62	5,198,605	53	5,775	49
52	47	**Rainier Bancorp.** (Seattle)	8,348,846	5,843,157	54	5,659,954	48	5,488	53
53	61	**Hartford National Corp.**	8,342,637	6,649,023	51	4,946,478	54	5,169	56
54	66	**United Virginia Bankshares** (Richmond)	8,099,556	5,956,414	53	5,755,686	46	5,640	50
55	59	**Shawmut Corp.** (Boston)	7,822,566	5,527,348	56	4,601,578	59	5,498	52
56	51	**Maryland National Corp.** (Baltimore)	7,791,531	5,146,937	63	5,921,113	45	5,619	51
57	56	**AmeriTrust Corp.** (Cleveland)	7,787,223	5,095,079	65	4,815,767	56	3,803	78
58	90	**Bank of Virginia Co.** (Richmond)	7,744,633	5,353,682	59	4,781,288	58	5,875	48
59	52	**Northern Trust Corp.** (Chicago)	7,500,172	5,032,241	67	3,577,185	70	4,551	64
60	●	**Michigan National Corp.** (Bloomfield Hills, Mich.)	7,251,727	6,328,176	52	5,414,954	50	6,550	46
61	68	**KeyCorp** (Albany, N.Y.)	7,122,181	5,725,326	55	4,088,442	61	6,576	45
62	●	**Boatmen's Bancshares** (St. Louis)	7,054,560	5,222,273	61	3,573,116	71	4,275	70
63	60	**Manufacturers National Corp.** (Detroit)	6,980,430	5,483,795	57	4,065,686	62	3,910	76
64	65	**Mercantile Bancorp.** (St. Louis)	6,762,725	4,985,187	69	3,920,022	64	4,488	66
65	64	**Fidelcor** (Philadelphia)	6,760,455	5,226,685	60	3,382,848	75	3,467	87
66	48	**European American Bancorp** (New York)[15]	6,654,672	4,658,606	74	4,475,042	60	3,626	81
67	81	**State Street Boston Corp.** (Boston)	6,652,695	4,569,901	76	1,995,447	100	4,716	61
68	70	**First Wisconsin Corp.** (Milwaukee)	6,477,324	5,126,600	64	4,063,197	63	5,325	55
69	63	**Texas American Bancshares** (Fort Worth)	6,413,155	5,396,603	58	4,782,923	57	3,595	84
70	75	**BayBanks** (Boston)	6,269,012	5,081,852	66	3,889,110	65	5,396	54
71	69	**Huntington Bancshares** (Columbus, Ohio)	6,240,444	4,761,575	72	3,838,952	67	4,382	68
72	71	**Meridian Bancorp** (Reading, Pa.)	6,229,735	4,850,487	70	3,644,294	69	4,923	58
73	72	**Florida National Banks of Florida** (Jacksonville)	5,980,814	4,990,929	68	3,839,067	66	4,695	63
74	80	**First American Bankshares** (Washington, D.C.)	5,725,786	4,820,662	71	3,481,012	73	4,246	71
75	73	**First Pennsylvania Corp.** (Philadelphia)	5,652,398	3,861,911	83	3,401,506	74	3,627	80
76	76	**Riggs National Corp.** (Washington, D.C.)	5,434,021	4,293,366	78	2,397,017	95	1,850	98
77	79	**California First Bank** (San Francisco)[17]	5,401,040	4,698,329	73	3,837,607	68	4,004	75
78	78	**Bank of Tokyo Trust** (New York)[18]	5,379,498	4,560,762	77	2,385,787	96	382	100
79	86	**First of America Bank Corp.** (Kalamazoo, Mich.)	5,326,355	4,657,544	75	3,216,657	78	4,504	65
80	77	**First Security Corp.** (Salt Lake City)	5,293,620	3,831,148	85	3,565,458	72	4,949	57
81	82	**First Tennessee National Corp.** (Memphis)	5,248,667	3,883,641	82	2,912,431	82	3,842	77
82	85	**AmSouth Bancorp.** (Birmingham, Ala.)	5,227,042	3,740,354	88	3,329,273	77	4,283	69
83	74	**Centerre Bancorp.** (St. Louis)	5,171,671	3,682,753	89	2,812,351	85	3,472*	86
84	87	**Third National Corp.** (Nashville)	5,045,256	4,239,740	79	3,183,056	79	3,600	83
85	83	**Commerce Bancshares** (Kansas City, Mo.)	4,923,886	4,065,984	80	2,339,853	98	4,041	74
86	88	**United Banks of Colorado** (Denver)	4,849,939	3,753,083	87	2,713,395	86	3,305	88
87	96	**First American Corp.** (Nashville)	4,789,093	3,786,127	86	2,839,372	84	3,253	89
88	97	**Marshall & Ilsley Corp.** (Milwaukee)	4,741,013	3,589,843	93	2,375,571	97	4,418	67
89	89	**Continental Bancorp** (Philadelphia)	4,717,962	4,042,666	81	3,080,303	81	3,017	93
90	84	**Dominion Bankshares** (Roanoke, Va.)	4,688,508	3,661,672	90	3,160,853	80	3,616	82
91	91	**First Maryland Bancorp** (Baltimore)	4,493,068	3,177,348	97	2,861,946	83	3,691	79
92	98	**Bancorp Hawaii** (Honolulu)	4,438,585	3,857,284	84	2,418,622	93	3,125	92
93	94	**United Jersey Banks** (Princeton)	4,428,253	3,609,766	92	2,585,315	89	3,176	90
94	●	**Indiana National Corp.** (Indianapolis)	4,391,469	3,361,859	95	2,439,467	92	2,542	97
95	95	**Old Kent Financial Corp.** (Grand Rapids, Mich.)	4,323,291	3,634,290	91	2,408,508	94	3,000	94
96	●	**Louisiana Bancshares** (Baton Rouge, La.)	4,293,602	3,565,512	94	2,622,921	88	3,132	91
97	93	**South Carolina National Corp.** (Columbia, S.C.)	4,212,058	3,050,063	99	2,649,666	87	4,131	73
98	●	**SouthTrust Corp.** (Birmingham, Ala.)	4,210,302	3,238,587	96	2,467,245	91	2,997	95
99	92	**American Security Corp.** (Washington, D.C.)	4,154,599	3,077,970	98	2,167,658	99	1,510	99
100	●	**First Kentucky National Corp.** (Louisville, Ky.)	4,141,503	2,995,621	100	2,488,194	90	4,164	72
		TOTALS	1,750,909,274	1,213,033,248		1,107,710,697		951,864	

● Not on last year's list.

N.A. Not available.

* Average for the year; see the reference to "employees" on page 146.

** Reflects an extraordinary credit of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[15] Wholly owned by six European banks, all of which were ranked on FORTUNE's list of the Largest Commercial Banking Companies Outside the U.S. last year.

[16] Figure is for American Bank & Trust.

[17] Company is 77% owned by Bank of Tokyo. (No. 11 among last year's Largest Commercial Banking Companies Outside the U.S.)

[18] Wholly owned by Bank of Tokyo.

NET INCOME		STOCKHOLDERS' EQUITY		NET INCOME AS PERCENT OF EQUITY		EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS			
									1975-85 GROWTH RATE		1985		1975-85 AVERAGE	
$ THOUSANDS	RANK	$ THOUSANDS	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK
66,237	47	574,155	45	11.5	67	3.33	3.05	1.40	9.03	59	25.28	80	18.16	65
65,202	48	500,013	55	13.0	50	3.26	3.13	1.24	10.10	46	48.67	37	24.26	33
80,360	41	515,652	53	15.6	19	4.15	3.80	(4.97)	—		38.45	63	21.85	48
67,595	46	503,525	54	13.4	44	5.30	4.66	1.13	16.66	14	36.92	64	28.39	7
57,290	55	446,914	58	12.8	52	5.17	4.69	0.35	31.03	2	41.63	52	28.28	9
73,015	43	464,669	57	15.2§	25	4.11	3.00	1.43	11.13	40	69.74	12	17.92	66
80,384	40	723,428	40	11.1	72	4.30	3.77	2.25	6.71	74	29.27	73	19.48	59
71,073	44	417,753	62	17.0	6	3.05	2.97	1.26	9.24	54	28.65	76	25.92	23
34,133	84	406,038	64	8.4	88	6.20	4.06	5.25	1.68	84	49.72	35	13.66	74
34,427	83	408,560	63	8.4	87	2.64	1.81	2.17	1.97	82	85.88	4	17.03	70
68,407	45	479,424	56	14.3	33	2.61	2.20	1.01	9.97	49	72.36	9	28.18	11
59,163	52	441,086	59	13.4	45	4.40	4.25	1.54	11.07	41	39.64	60	23.05	39
50,026	63	374,666	69	13.4	47	4.63	3.67	2.09	8.30	67	86.88	3	26.59	19
52,176	61	424,388	60	12.3	58	3.49	3.13	1.78	6.98	73	30.80	71	19.28	61
45,551	68	328,304	75	13.9	36	3.95	3.71	1.34	11.42	37	46.52	41	19.09	62
20,652**	98	338,624	74	6.1	93	N.A.	N.A.	N.A.	—		—		—	
55,254	57	323,208	76	17.1	5	3.20	2.83	0.34	24.99	4	83.10	6	40.04	1
39,599	75	375,168	68	10.6	74	4.21	3.40	1.38	11.76	35	84.53	5	25.60	26
26,196	94	380,850	67	6.9	92	2.40	4.06	1.99	1.90	83	(8.59)	92	16.90	72
48,579	66	315,538	79	15.4	24	7.62	5.88	2.07	13.89	23	52.59	31	26.86	16
52,498	60	384,252	65	13.7	40	2.66	2.37	0.68	14.55	20	51.49	33	28.54	6
57,601	53	419,587	61	13.7	39	4.68	3.84	1.82[16]	9.90	50	55.48	28	28.36	8
88,649	39	383,013	66	23.2	2	7.13	3.37	0.62	27.66	3	46.26	42	25.42	28
30,417	88	341,422	73	8.9	82	N.A.	N.A.	N.A.	—		—		—	
27,562**	91	343,487	72	8.0§	91	0.35**	0.56	1.39	(12.88)	90	43.75	49	(1.80)	90
30,975	87	248,009	100	12.5	55	5.18	4.49	2.49	7.60	70	94.29	1	23.96	35
25,583	95	282,413	89	9.1	81	2.26	1.99	1.63	3.31	79	93.81	2	19.87	54
25,529	96	297,447	86	8.6	85	N.A.	N.A.	N.A.	—		—		—	
43,191	70	312,156	82	13.4§	46	5.19	4.58	1.41	13.89	24	66.06	15	—	
19,033	99	358,338	70	5.3	94	1.56	1.90	1.83	(1.61)	87	16.97	84	9.50	84
37,816	80	272,909	92	13.9	37	2.75	2.73	0.51	18.28	10	31.84	69	26.78	17
46,509	67	344,614	71	13.5	41	2.77	2.32	1.07	9.98	48	17.37	83	17.27	68
27,180	93	319,635	78	8.5	86	3.53	3.05	2.60	3.09	80	28.38	77	17.16	69
49,827	64	310,558	84	16.0	16	2.64	2.23	0.29	24.55	5	47.73	39	27.04	14
37,911	79	321,081	77	11.8	62	7.23	5.90	3.04	9.05	58	44.59	47	19.78	57
35,975	81	314,815	80	11.4	70	3.47	3.02	1.32	10.15	45	33.86	67	21.27	51
40,175	74	282,891	88	14.2	34	2.52	2.29	(0.33)	—		41.44	53	22.81	41
42,950	71	290,785	87	14.8	27	7.99	6.62	3.07	10.04	47	54.35	29	26.68	18
51,009	62	312,333	81	16.3	9	4.65	4.13	2.14	8.07	69	56.78	25	23.48	37
39,257	76	268,920	94	14.6	30	3.73	3.25	1.59	8.88	61	44.15	48	19.44	60
28,279	89	279,994	90	10.1	78	2.23	1.92	1.12	7.10	72	82.33	7	24.57	32
38,561	77	262,032	96	14.7	29	4.31	3.77	1.60	10.42	44	40.79	54	20.56	53
35,800	82	249,960	98	14.3	32	3.26	2.88	1.04	12.10	33	69.34	13	27.82	12
32,095	85	263,458	95	12.2	60	3.69	3.81	0.16	36.56	1	63.01	18	23.26	38
49,414	65	306,896	85	16.1	12	3.82	3.50	1.03	13.97	22	58.69	21	—	
27,515	92	311,667	83	8.8	83	1.20	1.75	0.54	8.36	66	(3.32)	89	—	
31,733	86	273,126	91	11.6	66	2.97	3.68	0.93	12.27	32	43.15	51	28.23	10
43,604	69	270,884	93	16.1	13	1.99	1.78	0.48	15.23	16	46.16	43	26.11	22
25,412	97	248,937	99	10.2	77	2.17	0.41	1.39	4.55	78	78.15	8	21.95	46
41,889	72	254,234	97	16.5	8	3.12	2.64	1.04	11.64	36	46.07	44	26.26	20
10,818,609		92,968,065												

RANK		COMPANY	ASSETS[1]	REVENUES[2]		NET INCOME		STOCKHOLDERS' EQUITY	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	$ THOUSANDS	RANK
1	1	**Federal National Mortgage Assoc.** (Washington, D.C.)	99,086,724	10,342,075	5	36,889	33	1,342,316	13
2	2	**American Express** (New York)	74,777,000	11,850,000	4	810,000	1	5,369,000	1
3	3	**Aetna Life & Casualty** (Hartford)	58,293,600	18,612,100	1	375,700	4	4,857,200	2
4	6	**Merrill Lynch** (New York)	48,117,032	7,116,975	6	224,287	6	2,341,345	7
5	7	**First Boston** (New York)	45,531,112	888,292	35	130,267	16	703,822	24
6	4	**CIGNA** (Philadelphia)	44,736,200	16,196,900	2	(732,500)	50	4,004,000	3
7	5	**Travelers Corp.** (Hartford)	41,641,800	14,594,400	3	375,200	5	3,952,200	4
8	●	**Bear Stearns Companies** (New York)[4]	23,918,090	1,804,259	25	169,725	12	N.A.	
9	9	**E.F. Hutton Group** (New York)	21,749,360	3,205,186	14	43,685	30	809,988	22
10	11	**Loews** (New York)	16,119,782	6,918,294	7	588,975	2	2,442,241	6
11	13	**American International Group** (New York)	15,570,716	5,782,254	9	420,470	3	3,708,419	5
12	14	**Student Loan Marketing Assoc.** (Washington, D.C.)	14,450,147	1,283,130	28	123,329	17	675,625	25
13	12	**Transamerica** (San Francisco)	13,750,504	6,620,246	8	145,843	14	2,145,374	8
14	15	**Paine Webber Group** (New York)[5]	13,588,795	1,885,076	24	33,824	35	431,410	34
15	10	**Lincoln National** (Fort Wayne, Ind.)	13,550,259	5,070,834	11	214,278	7	2,004,634	9
16	16	**Continental** (New York)	11,494,806	5,119,157	10	61,270	26	2,001,066	10
17	18	**Kemper** (Long Grove, Ill.)	9,264,039	2,882,137	15	93,298	21	1,000,076	19
18	17	**Beneficial** (Wilmington, Del.)	8,718,200	2,059,000	23	101,200	19	933,700	21
19	●	**Fireman's Fund** (Novato, Calif.)	7,986,000	3,350,000	13	(44,000)	46	1,344,000	12
20	20	**USF&G** (Baltimore)	7,674,261	3,556,340	12	(108,083)	47	1,214,078	15
21	22	**Fleet Financial Group** (Providence)	7,122,294	793,287	36	82,243	24	510,559	31
22	24	**St. Paul Companies** (St. Paul, Minn.)	6,897,588	2,671,633	16	94,168	20	1,012,245	18
23	21	**General Re** (Stamford, Conn.)	6,689,400	2,123,000	22	135,800	15	1,794,200	11
24	25	**American Financial** (Cincinnati)	6,256,689	2,376,433	19	(23,100)	44	250,621	40
25	26	**Chubb** (Warren, N.J.)	5,763,216	2,394,023	18	70,540	25	1,104,793	17
26	28	**Reliance Group Holdings** (New York)	5,057,218	2,517,245	17	43,353	31	243,639	41
27	●	**Home Group** (New York)	5,022,000	2,145,000	21	(197,000)	49	744,000	23
28	27	**SAFECO** (Seattle)	4,763,739	2,164,886	20	170,394	11	1,105,684	16
29	●	**DCNY** (New York)	4,614,397	240,338	48	23,590	37	93,821	46
30	30	**Combined International** (Chicago)	3,195,687	1,359,824	27	181,995	9	983,252	20
31	31	**Farmers Group** (Los Angeles)	2,652,177	992,903	31	184,649	8	1,237,536	14
32	33	**GEICO** (Washington, D.C.)	2,378,409	1,219,408	29	170,579	10	515,636	29
33	37	**Old Republic International** (Chicago)	2,261,700	889,000	34	23,500‡	38	381,200	35
34	39	**Alexander & Alexander Services** (New York)	2,127,400	913,600	32	(7,300)	41	284,000	38
35	34	**Ohio Casualty** (Hamilton)	2,112,753	1,165,993	30	44,083	29	539,009	27
36	35	**Security Capital** (New York)[5]	2,046,201	268,328	47	10,936**	40	73,055	47
37	●	**Southmark** (Dallas)[6]	1,512,626	572,744	39	86,409	23	528,135	28
38	●	**Hanover Insurance Companies** (Worcester, Mass.)	1,489,523	897,699	33	23,317	39	358,876	36
39	●	**Fremont General** (Los Angeles)	1,484,282	669,754	37	89,543	22	222,174	42
40	●	**Lomas & Nettleton Financial** (Dallas)[6]	1,320,626	272,871	46	41,520	32	192,740	44
41	●	**Moseley, Hallgarten, Estabrook & Weeden** (Boston)[8]	1,311,972	118,549	50	(7,889)	43	25,853	48
42	●	**Integrated Resources** (New York)	1,283,198	440,025	41	49,812	28	462,460	33
43	●	**United States Leasing International** (San Francisco)	1,272,950	386,330	44	24,648	36	250,670	39
44	●	**Cincinnati Financial** (Cincinnati)	1,255,046	607,892	38	54,993	27	470,329	32
45	●	**Frank B. Hall** (Briarcliff Manor, N.Y.)	1,219,102	417,406	42	(190,548)	48	5,442	49
46	●	**Alleghany** (New York)	1,213,184	383,941	45	107,678	18	559,113	26
47	●	**Business Men's Assurance** (Kansas City, Mo.)	1,113,900	414,774	43	35,062	34	312,098	37
48	●	**Southland Financial** (Irving, Tex.)	1,072,182	130,284	49	(7,357)	42	205,799	43
49	●	**Marsh & McLennan Companies** (New York)	1,029,900	1,367,600	26	162,900	13	515,200	30
50	●	**Orion Capital** (New York)	922,494	528,691	40	(26,155)	45	155,443	45
		TOTALS	676,480,280	160,580,116		4,516,020		56,418,076	

● Not on last year's list.

N.A. Not available.

* Average for the year; see the reference to "employees" on page 146.

** Reflects an extraordinary credit of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

‡ Reflects an extraordinary charge of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[1] Total assets shown as of December 31, 1985, unless otherwise noted. Only assets of consolidated subsidiaries are included. Holding companies engaged in commercial banking or life insurance are listed here only when assets of those businesses represent less than 80% of the companies' total. Companies with prior-year ranks have been re-ranked to show what their ranks would have been had savings institutions not been included on this list last year.

NET INCOME AS PERCENT OF EQUITY		EMPLOYEES		EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS			
							1975-85 GROWTH RATE		1985		1975-85 AVERAGE	
PERCENT	RANK	NUMBER	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK
2.8	38	2,000	41	0.52	(0.87)	2.42	(14.25)	33	69.67	5	10.09	41
15.1	14	70,536	1	3.55	2.79	1.15	11.98	18	44.99	25	15.80	36
7.7	30	41,100	4	3.32	1.04	1.34	9.50	22	55.20	16	19.65	27
9.6	24	44,900	3	2.26	1.03	1.34	5.33	27	30.45	35	21.16	23
18.5	7	3,418	37	4.29	3.11	1.10	14.53	15	67.56	6	36.82	4
—		49,431	2	(10.77)	0.99	2.83[3]	—		52.31	18	12.34	39
9.5	25	31,273	5	4.18	4.43	1.02	15.09	14	34.93	33	20.56	24
—		4,300	33	N.A.	N.A.	N.A.	—		—		—	
5.4	35	17,489	9	1.63	2.05	1.11	3.91	28	22.17	38	28.17	13
24.1	5	21,900	7	7.23	4.03	0.69	26.57	3	64.68	7	37.66	3
11.3	18	26,100	6	5.51	4.06	1.33	15.30	13	56.40	13	18.19	32
18.3	9	822	49	2.45	1.91	N.A.	—		40.43	30	—	
6.8	32	15,600	13	2.15	2.64	1.13	6.64	24	36.44	31	21.88	21
7.8	29	11,442	18	1.70	0.77	1.47	1.46	29	29.73	36	29.21	11
10.7	21	11,800	17	4.89	3.40	1.05	16.58	11	34.17	34	21.36	22
2.7§	39	17,000	11	1.01	6.00	1.63	(4.64)	32	35.76	32	16.39	35
9.3	26	15,800	12	5.66	3.36	0.84	21.09	7	71.20	4	29.22	10
9.6§	23	8,300	24	3.82	4.02	3.34	1.35	30	50.74	22	19.28	29
—		12,100	16	N.A.	N.A.	N.A.	—		—		—	
—		9,100	22	(1.81)	2.14	0.90	—		51.29	21	22.73	19
16.1	12	5,246	30	4.67	3.89	1.00	16.66	10	45.99	24	29.03	12
9.3	27	9,739	21	4.70	(10.52)	2.50	6.52	25	56.20	14	14.97	37
7.6	31	2,188	39	2.90	3.47	0.78	13.98	16	61.20	11	20.24	25
—		5,800	28	N.A.	N.A.	N.A.	—		—		—	
6.4	34	9,000	23	1.92	2.84	1.03	6.46	26	62.64	9	18.91	30
5.2§	36	9,800	20	N.A.	N.A.	N.A.	—		—		—	
—		6,500	27	(5.19)	N.A.	N.A.	—		—		—	
15.4	13	11,100	19	4.74	3.25	0.69	21.25	6	46.37	23	19.37	28
25.1	4	280	50	5.89	5.86	1.15	17.72	9	101.23	1	29.97	9
18.5§	8	13,706	15	5.48	4.92	1.84	11.53	19	40.70	29	25.68	16
14.9	16	13,952	14	5.43	5.48	1.30	15.34	12	41.43	28	17.21	33
33.1	2	5,189	31	9.25	6.68	(7.13)	—		52.00	19	24.67	17
4.6§	37	4,300	34	1.20‡	4.23	1.76	(3.76)	31	51.33	20	26.27	15
—		17,000	10	(0.19)	(1.86)	0.99	—		53.05	17	13.09	38
8.2	28	5,460	29	3.91	2.68	1.38	10.94	20	56.72	12	19.65	26
15.0	15	970	47	1.74**	1.66	(1.27)	—		(12.34)	43	31.45	8
16.4	11	8,000	25	1.74	1.79	N.A.	—		63.38	8	23.19	18
6.5	33	3,764	35	2.27	1.53	0.23	25.73	4	91.47	2	41.86	1
40.3	1	1,475	44	8.30	1.87	0.35	37.15	1	43.07	27	—	
21.5	6	3,082	38	2.81	2.35	1.01	10.77	21	20.19	39	34.69	6
—		950*	48	(0.84)	0.47	3.20[7]	—		(28.95)	44	(4.30)	42
10.8	20	3,638	36	2.04	2.70	0.27	22.56	5	72.17	3	40.37	2
9.8	22	1,662	43	3.39	4.28	1.52	8.35	23	19.46	40	22.11	20
11.7	17	1,410	45	3.64	4.59	0.67	18.37	8	62.27	10	36.82	5
—		7,000	26	(13.17)	(1.15)	1.39	—		17.11	41	11.11	40
17.7§	10	4,786	32	13.31	31.16	0.75	33.33	2	16.13	42	32.95	7
11.2	19	2,108*	40	3.31	4.03	(0.62)[9]	—		28.70	37	27.71	14
—		1,056	46	(0.44)	0.41	0.61	—		(31.41)	45	18.36	31
31.6	3	17,733	8	4.46	1.62	1.43	12.05	17	43.14	26	16.43	34
—		2,000	42	(4.77)	0.30	N.A.	—		55.99	15	—	
		593,305										

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[2] Total revenues during the year, including any consolidated nonfinancial revenues from manufacturing, retailing, etc., and revenues from discontinued operations when published. All companies on the list must have derived more than 50% of their revenues from financial businesses and have a publicly traded stock.

[3] Figure is for Connecticut General.

[4] Figures are for fiscal year ended April 30, 1985.

[5] Figures are for fiscal year ended September 30, 1985.

[6] Figures are for fiscal year ended June 30, 1985.

[7] Figure is for Weeden.

[8] Figures are for fiscal year ended March 31, 1985.

[9] Figure is for BMA Corp.

THE 50 LARGEST SAVINGS INSTITUTIONS

RANK 1985	RANK 1984	COMPANY	ASSETS[1] $ THOUSANDS	REVENUES[2] $ THOUSANDS	REVENUES RANK	NET INCOME $ THOUSANDS	NET INCOME RANK	STOCKHOLDERS' EQUITY $ THOUSANDS	STOCKHOLDERS' EQUITY RANK
1	●	**Financial Corp. of America** (Irvine, Calif.)	27,374,935	3,344,505	2	53,250**	13	229,728	19
2	●	**H. F. Ahmanson** (Los Angeles)	27,228,612	3,029,258	3	220,827	1	1,133,674	2
3	●	**Great Western Financial Corp.** (Beverly Hills, Calif.)	25,471,349	3,404,248	1	201,702	2	1,197,090	1
4	●	**CalFed** (Los Angeles)	19,004,600	2,275,600	4	134,700	5	1,024,500	3
5	●	**Philadelphia Savings Fund Society** (Philadelphia)	17,153,011	1,536,550	5	64,618**	8	954,263	4
6	●	**Glendale Federal Sav. & Loan Assoc.** (Calif.)[3]	13,234,888	1,388,666	6	55,601	11	667,951	6
7	●	**Golden West Financial Corp.** (Oakland, Calif.)	12,129,556	1,378,035	7	160,041	3	472,102	7
8	●	**First Federal of Michigan** (Detroit)	10,195,908	1,114,645	8	55,680	10	292,082	13
9	●	**Home Federal Savings & Loan Assoc.** (San Diego)	10,018,646	1,111,841	9	72,786	7	698,380	5
10	●	**Gibraltar Financial Corp.** (Beverly Hills)[4]	9,862,209	1,027,535	11	38,853	16	240,865	16
11	●	**CityFed Financial Corp.** (Palm Beach, Fla.)	8,234,216	1,036,375	10	62,110	9	360,543	10
12	●	**Great American First Savings Bank** (San Diego)	8,211,046	874,451	15	45,666	14	385,896	9
13	●	**Imperial Corp. of America** (San Diego)	8,046,970	972,201	12	(16,450)	48	175,688	26
14	●	**CrossLand Savings, F.S.B.** (Brooklyn)	8,022,494	970,480	13	148,385**	4	421,623	8
15	●	**Coast Savings & Loan Assoc.** (Los Angeles)	7,470,286	725,159	17	21,384**	23	351,698	11
16	●	**Columbia Savings & Loan Assoc.** (Beverly Hills, Calif.)	7,116,427	917,722	14	122,278	6	269,279	15
17	●	**First Federal Savings Bank of Arizona** (Phoenix)[5]	5,219,438	614,007	18	29,092	19	196,495	21
18	●	**Carteret Savings & Loan Assoc., F.A.** (Morristown, N.J.)[6]	5,121,801	600,277	19	25,222**	21	185,765	22
19	●	**United Financial Group** (Houston)	4,989,028	517,449	22	(3,148)	44	114,224	35
20	●	**Western Savings & Loan Assoc.** (Phoenix)	4,807,367	491,066	23	36,667	17	113,075	36
21	●	**Florida Federal Savings & Loan Assoc.** (St. Petersburg)[3]	4,782,813	543,721	20	2,097**	43	290,407	14
22	●	**CenTrust Savings Bank** (Miami)[6]	4,711,001	531,009	21	36,636**	18	156,536	30
23	●	**Homestead Financial Corp.** (Burlingame, Calif.)	4,692,446	407,355	27	15,093	32	90,763	39
24	●	**Washington Mutual Savings Bank** (Seattle)	4,238,083	442,593	26	18,855	27	214,654	20
25	●	**American Continental Corp.** (Phoenix)	4,114,907	838,350	16	42,542	15	121,920	33
26	●	**Northeast Savings, F.A.** (Hartford)[7]	4,089,882	402,205	28	(5,108)**	45	157,663	29
27	●	**Perpetual American Bank, F.S.B.** (Alexandria, Va.)[8]	4,072,525	457,096	24	21,120**	24	236,785	17
28	●	**Atlantic Financial Federal** (Bala Cynwyd, Pa.)[6]	4,043,464	448,267	25	12,636**	36	158,097	28
29	●	**Old Stone Corp.** (Providence)	3,704,633	338,814	36	23,825	22	140,567	32
30	●	**Howard Savings Bank** (Newark)	3,656,405	368,093	31	16,024	31	236,620	18
31	●	**American Savings Bank, F.S.B.** (New York)	3,613,506	366,560	32	19,109**	26	185,343	23
32	●	**Pacific First Financial Corp.** (Tacoma, Wash.)[9]	3,359,893	332,297	37	(9,840)‡	47	183,658	24
33	●	**American Capital Corp.** (Miami)	3,289,461	385,844	29	6,991	41	85,753	41
34	●	**Citadel Holding Corp.** (Glendale, Calif.)	3,139,993	354,026	34	26,044	20	119,088	34
35	●	**Financial Corp. of Santa Barbara** (Santa Barbara, Calif.)	3,133,211	319,411	39	4,231**	42	8,531	49
36	●	**Western Capital Investment Corp.** (Denver)	3,029,419	371,020	30	17,684	28	293,624	12
37	●	**Guarantee Financial Corp. of Calif.** (Fresno)	2,860,229	339,237	35	14,131	34	79,604	44
38	●	**Farm & Home Savings Assoc.** (Nevada, Mo.)	2,800,891	295,638	45	13,771	35	183,415	25
39	●	**Georgia Federal Bank, F.S.B.** (Atlanta)	2,787,018	313,705	42	20,064	25	172,172	27
40	●	**American Savings & Loan Assoc. of Florida** (Miami)[6]	2,775,208	358,242	33	(33,243)	49	94,712	38
41	●	**Commercial Federal Corp.** (Omaha)[3]	2,626,264	302,884	43	9,133**	40	65,267	46
42	●	**Freedom Savings & Loan Assoc.** (Tampa, Fla.)[10]	2,598,000	328,130	38	N.A.		N.A.	
43	●	**Downey Savings & Loan Assoc.** (Costa Mesa, Calif.)	2,591,252	297,373	44	53,378	12	100,002	37
44	●	**Society for Savings** (Hartford)	2,506,751	294,472	46	14,294**	33	155,761	31
45	●	**Valley Federal Savings & Loan Assoc.** (Van Nuys, Calif.)	2,499,745	316,223	41	10,409	39	65,446	45
46	●	**First Columbia Financial** (Englewood, Colo.)	2,444,381	317,787	40	(5,806)	46	36,003	48
47	●	**Far West Financial** (Newport Beach, Calif.)	2,425,985	287,449	47	16,054	30	81,352	42
48	●	**Great Lakes Fed. Sav. & Loan Assoc.** (Ann Arbor, Mich.)	2,405,341	263,814	48	12,356‡	37	90,443	40
49	●	**Home Federal Savings & Loan Assoc.** (Tucson)	2,371,183	249,044	49	16,558	29	80,617	43
50	●	**Mercury Sav. & Loan Assoc.** (Huntington Beach, Calif.)	2,154,834	237,111	50	11,072	38	45,609	47
		TOTALS	336,431,511	38,437,840		1,929,374		13,415,333	

● Not on last year's list.

N.A. Not available.

* Average for the year; see the reference to "employees" on page 146.

** Reflects an extraordinary credit of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

‡ Reflects an extraordinary charge of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[1] As of December 31, 1985.

[2] Total consolidated revenues during the year, including interest income, real estate revenues, etc., and revenues from discontinued operations when published. All companies on the list must have derived more than 50% of their revenues from chartered thrift institutions and have a publicly traded stock.

[3] Figures are for fiscal year ended June 30, 1985.

NET INCOME AS PERCENT OF EQUITY		EMPLOYEES		EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS			
							1975-85 GROWTH RATE		1985		1975-85 AVERAGE	
PERCENT	RANK	NUMBER	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK
23.2	10	5,334	4	1.01**	(15.53)	0.14	21.48	7	27.72	30	37.43	2
19.5	14	7,880*	2	7.89	1.96**	1.92	15.18	9	91.02	14	22.83	7
16.9	18	8,644	1	5.02	2.75	1.02	17.28	8	41.21	27	18.76	11
13.2	27	6,000	3	6.02	2.87	N.A.	—		74.73	16	—	
6.8	40	4,500	7	1.84	2.05	N.A.	—		18.58	32	—	
8.3	35	4,555	6	2.64	2.03	N.A.	—		98.73	11	—	
33.9	6	2,420	11	5.14	2.70	0.49	26.41	4	96.96	13	30.72	4
19.1	15	2,041	16	5.31	3.04	N.A.	—		72.00	18	—	
10.4	30	3,856	8	3.53	3.06	N.A.	—		37.66	28	—	
16.1	20	2,562	9	2.34	2.03	0.75	12.11	10	11.84	34	15.14	12
17.2	17	5,200	5	3.60	4.17	N.A.	—		43.48	26	—	
11.8	28	2,260	12	3.65	1.86	N.A.	—		71.88	19	—	
—		2,519	10	(1.16)	0.71	2.06	—		9.33	36	5.60	14
35.2	4	2,056	14	N.A.	N.A.	N.A.	—		—		—	
6.1	41	1,731	19	1.63	N.A.	N.A.	—		—		—	
45.4	3	633	48	7.91	3.47	N.A.	—		175.86	2	26.63	5
14.8	22	2,043	15	4.40	2.89	N.A.	—		118.67	9	—	
13.6	26	1,603	24	2.73	0.91	N.A.	—		138.21	5	—	
—		750	42	(0.50)	5.50	(0.29)	—		(35.00)	39	—	
32.4	7	1,641	20	2.32	0.43	0.30	22.56	6	56.96	23	31.33	3
0.7	43	1,558	26	0.22	1.77	N.A.	—		11.43	35	—	
23.4	9	1,412	28	8.10	26.66	N.A.	—		—		—	
16.6	19	675	45	3.27	3.05	0.14	36.60	1	58.22	22	—	
8.8	34	1,360	29	2.90	(1.58)	N.A.	—		47.31	25	—	
34.9	5	1,020	35	2.71	0.92	N.A.	—		71.43	20	22.54	8
—		1,637	21	(2.08)	N.A.	N.A.	—		127.42	7	—	
8.9	33	1,264	31	2.95	N.A.	N.A.	—		—		—	
8.0	37	1,451	27	3.80	2.27	N.A.	—		12.00	33	—	
15.2§	21	2,009	17	4.10	3.86	1.53	10.36	11	19.38	31	20.73	9
6.8	39	1,621	22	2.86	1.86	N.A.	—		98.57	12	—	
10.3	31	1,065	33	N.A.	N.A.	N.A.	—		—		—	
—		1,301*	30	(1.32)	0.58	N.A.	—		34.33	29	—	
8.2	36	1,900*	18	0.47	0.39	(0.25)	—		50.00	24	19.62	10
21.9	11	668	46	7.73	2.12	N.A.	—		124.41	8	—	
49.6	2	665	47	0.83	(4.61)	0.93	(1.15)	12	153.57	4	9.91	13
6.0	42	2,160	13	2.07	N.A.	N.A.	—		—		—	
17.8	16	1,606	23	2.32	0.65**	N.A.	—		104.00	10	—	
7.5	38	740	43	1.95	0.86	N.A.	—		—		—	
11.7	29	1,600	25	2.54	0.56	N.A.	—		—		—	
—		794	40	(6.76)	1.65	N.A.	—		(18.60)	38	—	
14.0	24	769	41	3.33	N.A.	N.A.	—		—		—	
—		1,200	32	N.A.	(5.54)**	N.A.	—		(2.33)	37	—	
53.4	1	982	39	7.53	1.72	0.49	31.37	2	568.00	1	38.57	1
9.2	32	1,009	37	1.51	1.20	N.A.	—		—		—	
14.1§	23	1,003	38	3.21	(4.45)	N.A.	—		130.00	6	—	
—		1,045	34	(2.34)	2.49	N.A.	—		62.75	21	—	
19.7	13	525	50	7.89	6.31	0.88	24.53	5	72.29	17	24.36	6
13.7	25	729	44	3.21	2.43**	N.A.	—		163.53	3	—	
20.5	12	583	49	5.68	1.53	N.A.	—		—		—	
24.3	8	1,010	36	2.25	1.00**	0.20	27.32	3	90.17	15	—	
		103,589										

[4] Name changed from Gibraltar Financial Corp. of California April 23, 1985.

[5] Name changed from First Federal Savings & Loan Association of Arizona June 25, 1985; name changed to MeraBank January 1, 1986.

[6] Figures are for fiscal year ended September 30, 1985.

[7] Figures are for fiscal year ended March 31, 1985.

[8] Figures are for fiscal year ended October 31, 1985.

[9] Name changed from Pacific First Federal Savings Bank June 28, 1985.

[10] Figures are FORTUNE estimates.

THE 50 LARGEST LIFE INSURANCE COMPANIES

RANK		COMPANY	ASSETS[1]	PREMIUM AND ANNUITY INCOME[2]		NET INVESTMENT INCOME	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK
1	1	**Prudential** (Newark) *	**91,139,140**	**14,331,883**	1	**5,574,956**	2
2	2	**Metropolitan** (New York) *	**76,494,165**	**7,316,008**	2	**6,320,569**	1
3	3	**Equitable Life Assurance** (New York) *	**47,989,964**	**2,594,629**	9	**2,744,543**	4
4	4	**Aetna Life** (Hartford)[7]	**37,889,119**	**3,594,092**	6	**3,021,503**	3
5	5	**New York Life** (New York) *	**27,977,512**	**3,830,010**	5	**2,236,879**	7
6	6	**John Hancock Mutual** (Boston) *	**26,256,393**	**2,351,141**	12	**1,443,128**	8
7	7	**Travelers** (Hartford)[8]	**25,571,766**	**4,270,704**	3	**2,311,455**	6
8	9	**Teachers Insurance & Annuity** (New York)	**23,159,057**	**2,240,201**	14	**2,328,272**	5
9	8	**Connecticut General Life** (Bloomfield)[9]	**22,245,808**	**3,922,072**	4	**1,420,243**	9
10	10	**Northwestern Mutual** (Milwaukee) *	**17,897,884**	**2,417,095**	11	**1,321,031**	10
11	11	**Massachusetts Mutual** (Springfield) *	**15,578,620**	**2,420,736**	10	**1,253,008**	12
12	12	**Bankers Life** (Des Moines) *	**14,926,963**	**3,031,677**	7	**1,255,354**	11
13	14	**New England Mutual** (Boston) *	**10,907,567**	**2,300,488**	13	**897,301**	13
14	13	**Mutual of New York** (New York) *	**10,138,178**	**1,654,149**	16	**703,136**	15
15	15	**Mutual Benefit** (Newark) *	**9,444,085**	**1,422,616**	20	**826,573**	14
16	16	**Connecticut Mutual** (Hartford) *	**7,922,994**	**1,391,561**	22	**585,903**	16
17	17	**State Farm Life** (Bloomington, Ill.)	**6,588,267**	**1,156,082**	28	**576,470**	17
18	24	**IDS Life** (Minneapolis)[10]	**5,869,833**	**1,438,520**	19	**482,623**	19
19	23	**Executive Life** (Los Angeles)	**5,597,532**	**1,365,688**	24	**574,244**	18
20	20	**Nationwide Life** (Columbus, Ohio)	**5,377,375**	**827,969**	34	**320,531**	24
21	22	**Variable Annuity Life** (Houston)	**5,254,035**	**695,247**	37	**477,389**	20
22	19	**Lincoln National Life** (Fort Wayne, Ind.)[11]	**5,073,674**	**1,550,655**	17	**321,849**	23
23	18	**Southwestern Life** (Philadelphia)[12]	**4,893,560**	**1,349,264**	25	**172,343**	49
24	21	**Continental Assurance** (Chicago)[13]	**4,882,649**	**1,374,859**	23	**162,648**	50
25	28	**Pacific Mutual** (Newport Beach, Calif.) *	**4,617,346**	**1,296,282**	26	**365,044**	22
26	27	**Aetna Life & Annuity** (Hartford)	**4,553,389**	**674,689**	38	**260,866**	33
27	25	**Phoenix Mutual** (Hartford) *	**4,300,851**	**713,970**	36	**299,539**	27
28	38	**Transamerica Occidental Life** (Los Angeles)[14]	**4,051,575**	**1,404,306**	21	**230,290**	40
29	●	**Lincoln National Pension** (Fort Wayne, Ind.)[11]	**4,025,570**	**238,271**	49	**222,740**	42
30	41	**New York Life Insurance & Annuity** (Wilmington, Del.)	**3,955,981**	**1,286,827**	27	**389,942**	21
31	26	**Penn Mutual** (Philadelphia) *	**3,805,778**	**337,737**	47	**256,846**	35
32	29	**American General Life & Accident** (Nashville)[15]	**3,735,050**	**427,508**	44	**288,228**	28
33	33	**Northwestern National** (Minneapolis)[16]	**3,651,529**	**1,155,601**	29	**179,868**	48
34	31	**Union Mutual** (Portland, Me.) *	**3,503,887**	**527,010**	39	**313,131**	26
35	32	**State Mutual of America** (Worcester, Mass.) *	**3,464,135**	**1,100,341**	30	**261,388**	32
36	30	**Western & Southern Life** (Cincinnati) *	**3,337,442**	**422,672**	45	**218,336**	45
37	●	**Equitable Variable Life** (New York)	**3,313,624**	**1,065,329**	32	**248,132**	37
38	45	**Transamerica Life & Annuity** (Los Angeles)[14]	**3,250,483**	**2,595,829**	8	**314,047**	25
39	39	**General American Life** (St. Louis) *	**3,204,454**	**1,084,064**	31	**271,446**	30
40	34	**Franklin Life** (Springfield, Ill.)[17]	**3,187,075**	**429,132**	43	**278,033**	29
41	35	**American National** (Galveston, Tex.)	**3,176,540**	**412,500**	46	**219,665**	44
42	40	**Guardian of America** (New York) *	**3,172,289**	**1,770,788**	15	**268,733**	31
43	36	**National Life** (Montpelier, Vt.) *	**3,100,904**	**430,107**	42	**205,444**	46
44	37	**Minnesota Mutual Life** (St. Paul) *	**3,093,750**	**749,726**	35	**250,543**	36
45	44	**Kemper Investors Life** (Chicago)	**2,904,667**	**498,033**	40	**244,531**	39
46	48	**Mutual of America Life** (New York) *	**2,887,588**	**326,332**	48	**225,110**	41
47	●	**Provident National Assurance** (Chattanooga, Tenn.)	**2,863,680**	**850,916**	33	**257,782**	34
48	42	**United of Omaha Life** (Omaha)	**2,750,740**	**469,055**	41	**245,205**	38
49	●	**Allstate Life** (Northbrook, Ill.)[18]	**2,692,455**	**1,527,336**	18	**200,108**	47
50	43	**National Investors Pension** (Little Rock)	**2,611,311**	**N.A.**		**220,340**	43
		TOTALS	**598,288,233**	**90,641,707**		**44,067,288**	

Data for all companies are on the statutory accounting basis required by state insurance regulatory authorities.

● Not on last year's list.

* Indicates a mutual company.

[1] As of December 31, 1985.

[2] Includes premium income from life, accident, and health policies, annuities, and from contributions to deposit administration funds.

[3] After dividends to policyholders and federal income taxes, excluding capital gains and losses. Figures in parentheses indicate a loss.

[4] Face value of all life policies, including variable life insurance, as of December 31, 1985.

[5] Change between December 31, 1984, and December 31, 1985.

[6] Includes home office, field force, and full-time agents.

[7] Wholly owned by Aetna Life & Casualty (No. 3 on Diversified Financial list).

[8] Wholly owned by Travelers Corp. (No. 7 on Diversified Financial list).

[9] Wholly owned by CIGNA (No. 6 on Diversified Financial list).

NET GAIN FROM OPERATIONS[3]			LIFE INSURANCE IN FORCE[4]		INCREASE IN LIFE INSURANCE IN FORCE[5]				EMPLOYEES[6]	
	RANK									
$ THOUSANDS	MUTUAL	STOCK	$ THOUSANDS	RANK	$ THOUSANDS	RANK	PERCENT	RANK	NUMBER	RANK
152,192	4		560,966,167	1	27,975,946	2	5.3	26	60,706	1
169,662	2		482,799,703	2	18,037,757	3	3.9	30	38,000	3
(229,857)	23		287,822,648	3	39,611,336	1	16.0	11	30,200	4
333,419		1	207,880,770	4	3,244,450	22	1.6	35	16,100	9
187,131	1		178,884,038	5	(300,948)	44	—		19,079	5
155,926	3		158,973,210	6	312,618	36	0.2	37	19,037	7
317,158		3	144,145	47	6,938	40	—		45,937	2
118,008		6	15,272,355	41	1,612,612	29	11.8	18	2,548	35
327,343		2	113,941,139	10	3,913,799	20	3.6	31	12,104	11
14,318	12		121,042,513	9	13,478,023	8	12.5	16	7,635	17
79,881	6		68,635,562	12	3,218,955	23	4.9	29	8,000	16
108,190	5		65,780,844	13	6,359,449	15	10.7	21	8,820	15
(11,810)	21		52,185,874	21	6,206,645	18	13.5	14	9,036	13
(1,492)	19		51,418,008	22	55,201	39	0.1	38	8,960	14
44,247	7		50,761,019	24	(2,474,870)	47	—		4,197	26
28,470	9		44,868,281	26	991,302	32	2.3	34	6,323	20
63,166		12	92,806,767	11	9,946,938	11	12.0	17	18,141	8
23,351		18	16,604,561	40	2,875,252	25	20.9	7	5,611	22
3,255		21	34,971,210	28	7,066,264	14	25.3	5	600	44
58,131		13	16,810,494	39	463,799	34	2.8	33	7,008	18
(10,122)		25	3,664	48	(309)	42	—		1,129	42
196,355		4	129,942,632	8	15,717,525	4	13.8	13	2,626	34
32,618		15	62,252,981	15	(6,004,765)	48	—		1,977	39
71,993		10	60,213,247	18	13,487,923	7	28.9	4	N.A.	
14,597	11		26,953,579	31	3,925	41	17.0	9	2,525	36
(9,323)		24	18,230,282	38	3,164,761	24	21.0	6	3,600	29
12,638	13		61,682,508	16	6,288,580	16	11.4	20	3,419	31
75,425		9	137,144,618	7	11,476,874	10	9.1	23	5,049	23
24,954		16	507,383	45	(1,291,366)	46	—		1,419	40
(38,620)		27	29,514,408	30	13,137,226	9	80.2	2	19,079	6
10,592	15		22,969,621	33	739,147	33	3.3	32	3,128	32
189,158		5	21,106,904	36	1,937,228	28	10.1	22	9,794	12
36,930		14	50,834,328	23	7,107,016	13	16.3	10	2,023	38
12,619	14		4,209,393	42	(460,745)	45	—		3,445	30
(19,165)	22		30,336,860	29	4,865,504	19	19.1	8	4,133	27
36,821	8		24,355,899	32	2,525,141	27	11.6	19	5,982	21
(129)		22	44,942,560	25	14,878,789	5	—		N.A.	
(3,356)		23	499,804	46	(189,989)	43	—		1,285	41
9,920	16		60,934,693	17	14,658,577	6	31.7	3	2,304	37
91,996		8	21,664,963	34	1,195,803	30	5.8	25	4,237	25
95,953		7	21,461,724	35	1,021,998	31	5.0	28	6,807	19
17,415	10		54,101,223	20	6,272,452	17	13.1	15	4,472	24
(9,861)	20		19,941,359	37	2,647,355	26	15.3	12	3,036	33
2,359	18		64,520,337	14	3,844,932	21	6.3	24	3,724	28
10,975		20	765,981	44	374,602	35	95.7	1	175	45
8,654	17		2,263,910	43	110,661	38	5.1	27	651	43
14,215		19	N.A.		N.A.		—		66	46
23,993		17	39,341,109	27	220,886	37	0.6	36	12,411	10
66,364		11	55,051,393	19	8,155,589	12	—		N.A.	
(22,909)		26	N.A.		N.A.		—		N.A.	
2,883,748			3,688,316,671		268,486,786				436,538	

[10] Wholly owned by American Express (No. 2 on Diversified Financial list).

[11] Wholly owned by Lincoln National (No. 15 on Diversified Financial list).

[12] Wholly owned by Tenneco (No. 18 on the FORTUNE 500).

[13] Wholly owned by Loews (No. 10 on Diversified Financial list).

[14] Wholly owned by Transamerica (No. 13 on Diversified Financial list).

[15] Name changed from National Life & Accident January 1, 1985.

[16] Company is both a stock (55% of assets) and a mutual (45% of assets) company.

[17] Wholly owned by American Brands (No. 78 on the FORTUNE 500).

[18] Wholly owned by Sears Roebuck (No. 1 on Retailing list).

THE 50 LARGEST RETAILING COMPANIES

RANK		COMPANY	SALES[1]	ASSETS		NET INCOME		STOCKHOLDERS' EQUITY	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	$ THOUSANDS	RANK
1	1	**Sears Roebuck** (Chicago)[2]	**40,715,300**	**66,416,900**	1	**1,303,300**	1	**11,793,600**	1
2	2	**K mart** (Troy, Mich.)	**22,420,002**	**9,990,682**	4	**221,242**	9	**3,273,000**	3
3	3	**Safeway Stores** (Oakland, Calif.)[2]	**19,650,542**	**4,840,611**	7	**231,300**	8	**1,622,614**	8
4	4	**Kroger** (Cincinnati)[2]	**17,123,531**	**4,177,807**	10	**180,750**	17	**1,188,670**	17
5	6	**American Stores** (Salt Lake City)	**13,889,528**	**3,462,513**	14	**154,470**	22	**767,811**	23
6	5	**J.C. Penney** (New York)	**13,747,000**	**10,522,000**	3	**397,000**	3	**4,051,000**	2
7	7	**Southland** (Dallas)[2]	**12,719,241**	**3,735,544**	11	**212,535**	12	**1,496,823**	9
8	8	**Federated Department Stores** (Cincinnati)	**9,978,027**	**5,353,643**	5	**286,626**	5	**2,707,268**	4
9	9	**Lucky Stores** (Dublin, Calif.)	**9,382,282**	**1,932,460**	24	**86,526**	30	**636,362**	28
10	11	**Dayton Hudson** (Minneapolis)	**8,793,372**	**4,417,514**	9	**283,620**	6	**1,947,355**	6
11	10	**Household International** (Prospect Heights, Ill.)[2]	**8,685,500**	**11,928,500**	2	**210,900**	13	**1,630,900**	7
12	13	**Wal-Mart Stores** (Bentonville, Ark.)	**8,580,910**	**3,103,645**	16	**327,473**	4	**1,277,659**	14
13	12	**Winn-Dixie Stores** (Jacksonville, Fla.)[4]	**7,774,480**	**1,238,738**	32	**107,895**	26	**646,777**	27
14	15	**F.W. Woolworth** (New York)	**5,958,000**	**2,535,000**	19	**177,000**	18	**1,223,000**	16
15	16	**BATUS** (Louisville)[5,6]	**5,881,408**	**4,517,448**	8	**163,532**	20	**1,400,419**	12
16	17	**Great Atlantic & Pacific Tea** (Montvale, N.J.)[7]	**5,878,286**	**1,363,101**	29	**215,779****	11	**582,953**	30
17	14	**Montgomery Ward** (Chicago)[2,8]	**5,388,000**	**3,654,000**	13	**(298,000)**	50	**1,420,000**	10
18	21	**Supermarkets General** (Woodbridge, N.J.)	**5,122,633**	**1,103,841**	38	**63,712**	37	**346,981**	43
19	18	**May Department Stores** (St. Louis)	**5,079,900**	**3,442,300**	15	**235,400**	7	**1,417,600**	11
20	19	**Albertson's** (Boise)	**5,060,265**	**1,124,617**	36	**85,110**	32	**518,709**	32
21	20	**Melville** (Harrison, N.Y.)[2]	**4,805,380**	**1,806,673**	26	**210,812**	14	**1,102,205**	18
22	22	**Associated Dry Goods** (New York)	**4,385,019**	**2,288,646**	21	**119,696**	25	**1,052,618**	20
23	23	**R.H. Macy** (New York)[9]	**4,368,386**	**2,356,615**	20	**189,315**	15	**1,322,016**	13
24	32	**Wickes Companies** (Santa Monica, Calif.)	**4,362,454**	**2,648,298**	18	**76,130****	33	**976,927**	21
25	26	**Marriott** (Bethesda, Md.)[2]	**4,317,900**	**3,663,800**	12	**167,400**	19	**848,500**	22
26	24	**Allied Stores** (New York)	**4,135,027**	**2,771,837**	17	**159,275**	21	**1,258,470**	15
27	31	**Zayre** (Framingham, Mass.)	**4,036,018**	**1,581,769**	27	**94,647**	28	**605,775**	29
28	25	**Carter Hawley Hale Stores** (Los Angeles)	**3,977,913**	**2,234,767**	23	**48,025**	39	**359,354**	42
29	28	**McDonald's** (Oak Brook, Ill.)[2]	**3,694,747**	**5,043,146**	6	**433,039**	2	**2,244,818**	5
30	29	**Stop & Shop Companies** (Boston)	**3,689,076**	**1,111,988**	37	**30,300**	44	**405,670**	39
31	30	**Publix Super Markets** (Lakeland, Fla.)[2]	**3,445,518**	**738,111**	45	**71,827**	34	**482,114**	33
32	33	**Walgreen** (Deerfield, Ill.)[10]	**3,161,935**	**961,938**	40	**94,169**	29	**480,974**	34
33	35	**Jack Eckerd** (Largo, Fla.)[9]	**2,966,045**	**1,088,660**	39	**(8,325)**	49	**519,550**	31
34	34	**Tandy** (Fort Worth)[4]	**2,841,434**	**1,922,978**	25	**189,060**	16	**1,063,454**	19
35	27	**Cavenham (U.S.A.)** (Darien, Conn.)[11,12]	**2,529,392**	**624,490**	46	**(1,897)**	48	**108,082**	50
36	46	**Service Merchandise** (Nashville)[2]	**2,526,457**	**1,458,568**	28	**10,733**	46	**328,150**	44
37	38	**Revco D.S.** (Twinsburg, Ohio)[13]	**2,395,640**	**874,972**	41	**38,906**	42	**457,354**	36
38	●	**The Limited** (Columbus, Ohio)	**2,387,110**	**1,211,510**	34	**145,317**	23	**404,075**	40
39	37	**Best Products** (Richmond, Va.)	**2,234,768**	**1,331,975**	30	**2,223**	47	**415,396**	37
40	36	**Rapid-American** (New York)	**2,182,501**	**2,262,257**	22	**85,140**	31	**109,968**	49
41	39	**Transworld** (New York)[2]	**2,151,556**	**1,329,347**	31	**217,530**	10	**763,182**	24
42	40	**Giant Food** (Landover, Md.)[7]	**2,138,789**	**539,715**	48	**45,221**	41	**228,728**	45
43	45	**Lowe's Companies** (North Wilkesboro, N.C.)	**2,072,569**	**857,389**	43	**59,714**	38	**407,373**	38
44	44	**Toys "R" Us** (Rochelle Park, N.J.)	**1,976,134**	**1,225,916**	33	**119,774**	24	**717,394**	25
45	41	**U.S. Shoe** (Cincinnati)	**1,920,225**	**849,714**	44	**64,875**	36	**477,334**	35
46	43	**Mercantile Stores** (Wilmington, Del.)	**1,880,039**	**1,151,228**	35	**102,448**	27	**678,034**	26
47	48	**Food Lion** (Salisbury, N.C.)[2]	**1,865,632**	**439,697**	49	**47,585**	40	**207,379**	46
48	42	**Waldbaum** (Central Islip, N.Y.)[2]	**1,764,041**	**362,255**	50	**17,109**	45	**145,584**	47
49	●	**Circle K** (Phoenix)[14]	**1,682,164**	**579,757**	47	**33,421**	43	**122,613**	48
50	●	**Dillard Department Stores** (Little Rock)	**1,601,357**	**861,601**	42	**66,903**	35	**362,333**	41
		TOTALS	**319,323,436**	**195,040,481**		**7,576,542**		**58,604,957**	

● Not on last year's list.

N.A. Not available.

* Average for the year; see the reference to "employees" on page 146.

** Reflects an extraordinary credit of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[1] Net sales include operating revenues from non-retail activities and revenues from discontinued operations when they are published. All figures are for the fiscal year that ended January 31, 1986, unless otherwise noted. Sales of subsidiaries are included when they are consolidated. All companies on the list must have derived more than 50% of their revenues from retail operations.

[2] Figures are for fiscal year ended December 31, 1985.

[3] Figure is for Skaggs.

[4] Figures are for fiscal year ended June 30, 1985.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS			
		SALES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE	
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK
466,000*	1	3.2	18	11.1	38	3.53	4.01	1.65	7.87	28	29.25	32	7.61	40
330,000	2	1.0	42	6.8	44	1.73	3.84	1.64	0.54	38	4.29	43	3.98	43
164,385	5	1.2	39	14.3	29	3.83	3.12	2.87	2.93	36	42.73	22	11.81	33
178,151	3	1.1	41	15.2	22	4.09	3.49	1.27	12.36	22	27.71	33	25.16	16
121,000	9	1.1	40	16.8§	16	4.11	5.71	0.59[3]	21.35	9	63.80	12	28.55	12
177,000	4	2.9	21	9.8	40	5.31	5.81	3.16	5.33	30	25.65	37	6.06	42
63,500*	21	1.7	34	14.2	30	4.41	3.41	1.10	14.91	19	66.67	9	16.53	27
132,500	8	2.9	23	10.6	39	5.88	6.77	3.54	5.21	31	34.60	29	7.16	41
68,000*	18	0.9	44	13.4§	32	1.67	1.84	1.20	3.37	35	48.04	20	11.73	34
120,000*	10	3.2	17	14.6	26	2.92	2.68	0.80	13.75	20	48.41	19	25.38	15
43,000	31	2.4	27	11.6§	36	3.65	4.18	2.42	4.20	33	35.46	28	18.42	22
104,000	11	3.8	14	25.6§	5	1.16	0.95	0.05	36.44	2	69.27	6	45.30	2
74,300	17	1.4	36	16.7	18	2.64	2.83	1.21	8.11	26	26.50	36	14.13	31
74,449	16	3.0	20	14.5	27	5.50	4.45	3.32	5.18	32	68.85	7	17.84	23
62,754	22	2.8	24	11.7	35	N.A.	N.A.	N.A.	—		—		—	
53,000	28	3.7	15	37.0	2	5.74**	1.27**	(6.31)	—		36.72	26	7.83	38
95,732*	12	—		—		N.A.	N.A.	N.A.	—		—		—	
52,000	29	1.2	37	18.4	14	3.56	2.95	0.46	22.57	7	51.32	17	37.66	8
79,500	14	4.6	7	16.4§	20	5.38	4.96	1.96	10.62	24	69.76	5	16.99	26
37,000	34	1.7	33	16.4	19	2.57	2.42	0.59	15.76	18	14.87	38	22.78	19
76,011	15	4.4	8	19.1§	12	3.90	3.60	0.89	15.86	17	40.20	24	23.56	18
65,000	20	2.7	25	11.4	37	3.00	3.03	1.59	6.52	29	53.04	15	14.43	29
57,000	25	4.3	9	14.3	28	3.69	4.37	0.60	19.83	13	56.16	14	30.45	11
57,350	24	1.8	32	7.8	42	0.47**	20.30**	(1.69)	—		65.22	10	(1.92)	44
154,600	6	3.9	11	19.7	9	6.20	5.18	0.65	25.35	5	44.83	21	22.34	20
65,000	19	3.9	12	12.7	33	3.70	3.35	1.72	7.95	27	39.87	25	17.28	24
57,500	23	2.4	28	15.6	21	3.23	2.99	0.28	27.78	4	86.20	4	44.08	3
56,000	27	1.2	38	5.0§	45	0.92	2.75	2.11	(7.97)	40	26.65	35	7.64	39
148,000*	7	11.7	1	19.3	11	4.99	4.39	0.96	17.86	14	58.82	13	13.34	32
48,000	30	0.8	45	7.5	43	2.20	4.60	1.47	4.10	34	(3.55)	45	25.64	14
40,098	32	2.1	30	14.9	24	1.47	1.56	N.A.	—		—		—	
37,200	33	3.0	19	19.6	10	1.53	1.39	0.19	23.44	6	27.19	34	39.35	
32,400	36	—		—		(0.22)	2.27	0.88	—		11.25	39	9.69	36
35,000	35	6.7	3	17.8	15	3.81	2.75	0.24	31.95	3	68.04	8	37.88	7
22,000	41	—		—		N.A.	N.A.	N.A.	—		—		—	
24,212	40	0.4	46	3.3	46	0.32	1.46	0.30	0.76	37	4.82	42	14.42	30
26,000	38	1.6	35	8.5	41	1.06	2.54	0.37	11.07	23	9.10	40	15.83	28
25,300	39	6.1	4	36.0	3	1.20	0.77	0.05	38.70	1	132.85	1	54.04	1
18,000	44	0.1	47	0.5	47	0.08	0.50	0.16	(6.43)	39	31.05	30	8.84	37
56,500	26	3.9	13	77.4	1	N.A.	N.A.	N.A.	—		—		—	
85,000	13	10.1	2	28.5	4	5.66	3.14	(6.68)	—		29.35	31	21.49	21
17,800	45	2.1	29	19.8	8	3.05	2.77	0.47	20.65	11	89.68	3	39.59	4
13,317	49	2.9	22	14.7	25	1.64	1.70	0.32	17.65	15	5.98	41	9.98	35
20,500	43	6.1	5	16.7	17	1.39	1.30	N.A.	—		36.41	27	—	
30,000	37	3.4	16	13.6	31	2.92	2.42	0.61	16.95	16	65.05	11	26.58	13
22,000*	42	5.5	6	15.1	23	6.95	5.75	2.14	12.50	21	41.06	23	17.04	25
17,089	46	2.6	26	23.0	7	0.90	0.71	0.15	19.83	12	50.70	18	37.91	6
7,000	50	1.0	43	11.8	34	3.08	2.34	1.22	9.72	25	52.69	16	25.13	17
16,657	47	2.0	31	24.0§	6	2.43	1.80	0.33	22.10	8	0.18	44	33.93	10
16,010*	48	4.2	10	18.5	13	2.29	1.81	0.35	20.79	10	96.76	2	36.34	9
3,842,815														

[5] The sales figure does not include excise taxes and is at least 5% lower for this reason.

[6] Wholly owned by BAT Industries (No. 26 among last year's Largest Industrial Corporations Outside the U.S.).

[7] Figures are for fiscal year ended February 28, 1985.

[8] Wholly owned by Mobil (No. 3 on the FORTUNE 500).

[9] Figures are for fiscal year ended July 31, 1985.

[10] Figures are for fiscal year ended August 31, 1985.

[11] Company is holding company of Grand Union.

[12] Figures are for fiscal year ended March 31, 1985.

[13] Figures are for fiscal year ended May 31, 1985.

[14] Figures are for fiscal year ended April 30, 1985.

THE 50 LARGEST TRANSPORTATION COMPANIES

RANK		COMPANY	OPERATING REVENUES[1]	ASSETS		NET INCOME[2]		STOCKHOLDERS EQUITY	
1985	1984		$ THOUSANDS	$ THOUSANDS	RANK	$ THOUSANDS	RANK	$ THOUSANDS	RAN
1	1	**Burlington Northern** (Seattle)	8,650,927	12,511,958	1	658,295	1	4,645,084	3
2	5	**United Parcel Service** (Greenwich, Conn.)	7,686,719	4,161,693	7	567,627	2	2,026,417	6
3	2	**CSX** (Richmond, Va.)	7,320,000	11,494,000	3	(118,000)	49	4,595,000	4
4	6	**Santa Fe Southern Pacific** (Chicago)	6,438,000	11,807,600	2	469,600	4	5,764,200	1
5	4	**UAL** (Elk Grove, Ill.)	6,383,405	7,874,219	5	(48,683)	46	1,789,469	7
6	7	**AMR** (Fort Worth)	6,131,028	6,421,101	6	345,840	6	2,180,914	5
7	8	**Eastern Air Lines** (Miami)	4,815,070	3,870,064	8	6,310	38	260,941	30
8	9	**Delta Air Lines** (Atlanta)[5]	4,684,115	3,626,840	9	259,453	9	1,287,094	8
9	12	**Norfolk Southern** (Norfolk, Va.)	3,825,077	9,768,631	4	500,233	3	4,761,504	2
10	11	**Trans World Airlines** (New York)	3,725,418	2,768,800	11	(193,092)	50	539,482	17
11	10	**Pan Am** (New York)	3,484,368	2,448,413	12	51,750	23	448,950	22
12	13	**NWA** (St. Paul)	2,655,491	2,320,006	13	73,119	18	947,001	10
13	19	**Federal Express** (Memphis)[7]	2,030,661	1,899,506	19	76,077	16	812,267	12
14	21	**Texas Air** (Houston)	1,944,190	1,950,633	17	90,981**	13	115,157	41
15	15	**Consolidated Freightways** (Palo Alto, Calif.)	1,882,142	1,133,573	27	79,291	15	603,794	16
16	16	**USAir** (Arlington, Va.)	1,765,144	1,951,499	16	117,088	12	955,523	9
17	17	**Republic Airlines** (Minneapolis)	1,734,397	1,286,297	24	177,006**	10	196,081	36
18	14	**Sea-Land** (Edison, N.J.)	1,634,183	1,965,558	15	14,202	35	787,804	13
19	18	**Roadway Services** (Akron, Ohio)	1,579,825	999,861	34	75,911	17	613,836	15
20	20	**Yellow Freight System** (Overland Park, Kans.)	1,530,313	747,904	38	55,536	22	321,871	25
21	24	**Piedmont Aviation** (Winston-Salem, N.C.)	1,527,231	1,487,222	23	66,712	20	500,885	20
22	22	**Leaseway Transportation** (Beachwood, Ohio)	1,503,848	1,030,057	32	62,451	21	341,056	24
23	26	**Western Air Lines** (Los Angeles)	1,306,546	951,523	36	67,134**	19	240,495	32
24	23	**Sohio Pipe Line** (Cleveland)[9]	1,305,000	3,065,000	10	302,000	8	N.A.	
25	29	**McLean Industries** (New York)	1,184,009	1,811,750	21	(66,705)	47	266,748	29
26	30	**American President Companies** (Oakland, Calif.)	1,170,717	1,059,752	30	38,486	27	537,594	18
27	25	**Tiger International** (Los Angeles)	1,147,045	956,118	35	(72,687)	48	(4,462)	50
28	28	**Illinois Central Gulf Railroad** (Chicago)[10]	1,026,493	1,916,963	18	29,968**	28	661,717	14
29	27	**Exxon Pipeline** (Houston)[11]	977,915	1,837,653	20	361,571	5	254,031	31
30	39	**People Express** (Newark)	977,864	1,065,699	29	(27,537)	44	210,693	35
31	31	**ARCO Pipe Line** (Independence, Kans.)[12]	903,000	2,051,000	14	331,000	7	946,000	11
32	32	**CNW** (Chicago)[13]	897,712	1,502,906	22	(27,412)**	43	287,691	28
33	33	**Emery Air Freight** (Wilton, Conn.)	875,814	454,393	41	16,232	32	178,604	37
34	34	**Purolator Courier** (Basking Ridge, N.J.)	799,576	444,116	42	(29,356)	45	177,931	38
35	35	**PSA** (San Diego)	779,952	1,052,093	31	26,828	29	213,461	34
36	40	**Southwest Airlines** (Dallas)	679,672	1,022,396	33	47,278	25	466,004	21
37	37	**BP Pipelines** (Rye, New York)[14]	668,000	1,259,000	25	169,000	11	N.A.	
38	45	**Mayflower** (Carmel, Ind.)	619,264	256,552	46	14,653	33	87,092	44
39	●	**Soo Line** (Minneapolis)	617,570	1,138,205	26	(8,691)	42	307,878	26
40	41	**Arkansas Best** (Fort Smith, Ark.)	581,619	277,558	45	16,565**	31	94,708	43
41	43	**United Van Lines** (Fenton, Mo.)	562,101	116,513	49	3,164	40	28,911	47
42	42	**Allied Van Lines** (Broadview, Ill.)	546,781	107,209	50	4,748	39	33,615	46
43	46	**Carolina Freight** (Cherryville, N.C.)	523,369	249,809	47	14,448	34	105,623	42
44	48	**Alexander & Baldwin** (Honolulu)	480,717	863,836	37	83,590	14	501,202	19
45	47	**Ozark Holdings** (St. Louis)	480,540	381,474	43	636	41	121,119	40
46	44	**Kansas City Southern Industries** (Kansas City, Mo.)	474,583	1,065,729	28	49,850	24	437,659	23
47	●	**Overnite Transportation** (Richmond, Va.)	470,330	300,604	44	39,017	26	213,991	33
48	49	**Airborne Freight** (Seattle)	465,991	214,748	48	8,169	37	81,581	45
49	●	**Alaska Air Group** (Seattle)	433,187	537,049	40	25,935	30	161,011	39
50	●	**Grand Trunk** (Detroit)	404,921	541,403	39	13,338**	36	307,787	27
		TOTALS	104,291,840	120,026,486		4,818,929		41,413,014	

● Not on last year's list.

N.A. Not available.

* Average for the year; see the reference to "employees" on page 146.

** Reflects an extraordinary credit of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

‡ Reflects an extraordinary charge of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[1] Consolidated operating revenues include those from non-transportation activities and sales from discontinued operations when these are published. All figures are for the year that ended December 31, 1985, unless otherwise noted. All companies must derive more than 50% of their operating revenues from carrier operations and file public financial statements.

[2] Net income for all railroads has been calculated according to generally accepted accounting principles.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS			
		OPERATING REVENUES		STOCKHOLDERS' EQUITY					1975-85 GROWTH RATE		1985		1975-85 AVERAGE	
NUMBER	RANK	PERCENT	RANK	PERCENT	RANK	1985/$	1984/$	1975/$	PERCENT	RANK	PERCENT	RANK	PERCENT	RANK
45,022	6	7.6	10	13.1§	21	8.03	7.15	1.03	22.80	5	48.54	10	27.57	6
152,400*	1	7.4	11	28.0	6	3.36	2.82	N.A.	—		—		—	
53,200	4	—		—		(0.78)	3.15	0.80[3]	—		31.69	16	26.63	8
59,443	3	7.3	12	8.2	33	2.67	2.61	1.17[4]	8.63	14	39.81	14	20.96	15
76,000*	2	—		—		(2.09)	7.46	(0.24)	—		15.31	26	7.53	27
52,100	5	5.6	16	15.5§	16	5.94	4.37	(0.72)	—		14.53	28	17.42	20
41,100	7	0.1	41	—		(0.36)	(1.53)	(2.65)	—		45.45	12	3.51	30
39,047	9	5.5	17	20.2	8	6.50	4.42	1.24	18.02	8	(8.76)	36	10.01	23
39,794*	8	13.1	6	10.5	28	7.95	7.66	2.80[6]	11.00	13	45.46	11	21.35	12
29,080*	10	—		—		(6.10)	0.17	N.A.	—		54.76	8	—	
24,537	12	1.5	36	11.5	25	0.45	(2.00)	(1.11)	—		67.57	5	3.97	29
16,641	18	2.8	32	7.7	34	3.18	2.44‡	2.01	4.69	20	15.11	27	9.73	24
27,066*	11	3.8	24	9.4	31	1.61	2.52	N.A.	—		65.22	6	—	
15,900	20	4.7	20	75.7§	4	5.03**	2.83**	(3.58)	—		64.38	7	26.96	7
21,700	13	4.2	22	13.1	20	3.10	2.81	0.76	15.09	9	42.79	13	20.40	17
14,021	22	6.6	14	12.3	23	4.05	4.92	(1.64)	—		3.76	34	24.22	10
15,202	21	10.2	8	88.4§	3	4.74**	0.76**	0.43[8]	27.13	2	100.00	2	18.23	19
8,300	28	0.9	37	1.8	38	0.61	3.51	N.A.	—		26.00	19	—	
20,500	15	4.8	19	12.4	22	1.90	2.49	0.87	8.18	16	17.93	25	8.26	26
20,750*	14	3.6	25	17.3	12	1.95	1.55	0.85	8.59	15	85.45	4	8,60	25
15,958	19	4.4	21	13.3	19	3.89	4.16	0.06	52.94	1	13.48	30	34.29	3
19,000	17	4.2	23	18.3	9	5.29	2.55	1.79	11.42	12	19.98	23	12.28	22
10,247*	23	5.1	18	27.9	7	1.76**	(1.37)	0.81	8.07	17	111.54	1	(0.89)	32
230	49	23.1	4	—		N.A.	N.A.	N.A.	—		—		—	
3,750	40	—		—		(1.89)	1.53	N.A.	—		(14.44)	39	—	
3,687	41	3.3	28	7.2	35	1.86	5.78	(0.54)	—		(11.92)	38	—	
6,800	33	—		—		(2.69)	(4.13)	1.46	—		18.87	24	(3.39)	33
8,543	27	2.9	29	4.5	36	N.A.	N.A.	N.A.	—		—		—	
752	48	37.0	1	142.3	1	N.A.	N.A.	N.A.	—		—		—	
7,500	31	—		—		(1.60)	(0.18)	N.A.	—		(9.47)	37	—	
857*	46	36.7	2	35.0	5	N.A.	N.A.	N.A.	—		—		—	
10,000	24	—		—		(1.70)**	1.29	(0.62)	—		—		—	
7,400	32	[illegible]	34	9.1	32	0.85	1.70	0.80	0.55	21	0.72	35	1.29	31
20,292	16	—		—		(3.86)	2.05	2.08	—		(15.51)	40	4.69	28
4,852	36	3.4	26	11.7§	24	3.88	(0.90)	(4.19)	—		24.87	20	21.26	13
5,271	34	7.0	13	10.2	29	1.54	1.69	0.24	20.37	6	22.73	22	45.58	1
N.A.		25.3	3	115.0	2	N.A.	N.A.	N.A.	—		—		—	
2,485	44	2.4	33	16.8	13	1.91	2.06	0.49	14.57	10	35.95	15	—	
7,575*	30	—		—		(1.14)	2.37	1.37	—		13.74	29	18.31	18
8,928	26	2.9	30	17.5	11	3.30**	3.09**	(0.98)	—		87.49	3	22.62	11
790*	47	0.6	39	10.9	27	N.A.	N.A.	N.A.	—		—		—	
1,030	45	0.9	38	14.1	17	4.56	7.40	0.42	26.93	3	—		—	
8,219	29	2.8	31	13.7	18	2.26	2.16	(0.34)	—		31.39	17	32.13	4
3,365	42	17.4	5	16.7	14	4.50	3.60	1.20	14.13	11	24.00	21	25.33	9
4,159	39	0.1	40	0.5	39	0.05	1.08	0.08	(4.59)	22	31.04	18	20.71	16
[illegible]	38	10.5	7	11.4	26	4.92	4.82	0.51	25.44	4	8.51	31	39.07	2
9,378	25	8.3	9	18.2	10	1.42	1.24	0.25	18.79	7	51.58	9	28.83	5
5,247	35	1.8	35	10.0	30	1.39	1.85	0.85	5.08	19	6.95	33	12.79	21
3,284	43	6.0	15	16.1	15	2.10	2.19	1.19**	5.81	18	7.42	32	21.02	14
4,740*	37	3.3	27	4.3	37	N.A.	N.A.	N.A.	—		—		—	
960,442														

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[3] Figure is for Seaboard Coast Line.
[4] Figure is for Santa Fe Industries.
[5] Figures are for fiscal year ended June 30, 1985.
[6] Figure is for Norfolk & Western Railway.
[7] Figures are for fiscal year ended May 31, 1985.
[8] Figure is for North Central Airlines.
[9] Wholly owned by Standard Oil (No. 24 on the FORTUNE 500).
[10] Wholly owned by IC Industries (No. 67 on the FORTUNE 500).
[11] Wholly owned by Exxon (No. 2 on the FORTUNE 500).
[12] Wholly owned by Atlantic Richfield (No. 12 on the FORTUNE 500).
[13] Formed as a holding company for Chicago & Northwestern Transportation June 21, 1985.
[14] Wholly owned by British Petroleum (No. 2 among last year's Largest Industrial Corporations Outside the U.S.).

THE 50 LARGEST UTILITIES

RANK 1985	RANK 1984	COMPANY	ASSETS[1] $ THOUSANDS	OPERATING REVENUES[2] $ THOUSANDS	RANK	NET INCOME $ THOUSANDS	RANK	STOCKHOLDERS' EQUITY $ THOUSANDS	RANK
1	1	**GTE** (Stamford, Conn.)	26,557,897	15,732,361	1	(161,091)	49	7,055,609	8
2	2	**BellSouth** (Atlanta)	25,008,300	10,663,900	2	1,417,800	1	10,198,100	1
3	3	**NYNEX** (New York)	20,599,700	10,313,600	3	1,095,300	2	8,348,800	2
4	4	**Bell Atlantic** (Philadelphia)	19,788,400	9,084,200	4	1,092,900	3	7,921,300	3
5	5	**Pacific Telesis Group** (San Francisco)	19,538,300	8,498,600	6	929,100	8	7,317,000	7
6	6	**Southwestern Bell** (St. Louis)	19,291,100	7,925,000	8	996,200	6	7,397,000	6
7	8	**Pacific Gas & Electric** (San Francisco)	19,098,003	8,430,981	7	1,030,805	5	7,514,926	4
8	7	**American Information Technologies** (Chicago)	18,148,800	9,021,100	5	1,077,700	4	7,449,500	5
9	9	**U S West** (Englewood, Colo.)	17,974,700	7,812,600	9	925,600	9	6,943,500	9
10	10	**Southern** (Atlanta)	16,531,495	6,813,927	10	829,590	10	5,332,401	11
11	11	**Commonwealth Edison** (Chicago)	16,285,046	4,964,151	15	955,736	7	6,286,072	10
12	13	**Middle South Utilities** (New Orleans)	13,656,451	3,238,459	25	400,991	22	3,907,159	17
13	12	**American Electric Power** (Columbus, Ohio)	13,621,469	4,847,981	16	410,651‡	20	3,938,233	16
14	14	**Southern California Edison** (Rosemead)	12,593,449	5,168,848	13	774,107	11	5,041,900	12
15	15	**Texas Utilities** (Dallas)	10,867,022	4,170,157	19	587,758	12	4,066,664	15
16	16	**Public Service Electric & Gas** (Newark)	10,487,053	4,409,054	17	544,552	14	4,323,530	14
17	17	**Philadelphia Electric** (Philadelphia)	10,165,314	3,013,704	28	525,301	15	3,765,520	18
18	19	**Detroit Edison** (Detroit)	9,492,360	2,788,157	32	437,515	19	3,119,855	21
19	20	**Consolidated Edison** (New York)	8,944,938	5,497,920	11	563,731	13	4,551,195	13
20	21	**FPL Group** (Juno Beach, Fla.)	8,917,353	4,348,827	18	372,254	23	2,588,446	26
21	24	**Houston Industries** (Houston)	8,797,463	4,061,812	21	464,394	17	2,902,400	22
22	18	**Consumers Power** (Jackson, Mich.)	8,614,594	3,298,328	24	(269,772)	50	2,586,421	27
23	22	**Dominion Resources** (Richmond, Va.)	8,480,649	2,712,106	33	319,807	28	2,677,268	24
24	23	**Duke Power** (Charlotte, N.C.)	8,024,163	2,898,911	29	437,593	18	3,351,989	19
25	25	**Long Island Lighting** (Mineola, N.Y.)	7,954,495	2,033,737	39	524,288	16	3,193,956	20
26	27	**Ohio Edison** (Akron)	7,290,417	1,754,749	46	370,685	24	2,660,191	25
27	29	**Niagara Mohawk Power** (Syracuse, N.Y.)	7,013,837	2,694,940	35	411,430	21	2,778,620	23
28	26	**Pennsylvania Power & Light** (Allentown)	6,965,639	1,976,502	41	290,613	30	2,137,075	31
29	28	**Central & South West** (Dallas)	6,817,299	2,710,751	34	339,760	25	2,205,952	30
30	31	**Carolina Power & Light** (Raleigh, N.C.)	6,655,090	1,934,715	42	331,446	27	2,380,604	28
31	32	**Union Electric** (St. Louis)	6,180,826	1,591,763	47	337,225	26	2,244,020	29
32	30	**General Public Utilities** (Parsippany, N.J.)	6,176,281	2,869,509	31	96,506	42	1,744,079	37
33	34	**Northeast Utilities** (Berlin, Conn.)	6,147,720	2,081,021	38	288,541	31	1,738,871	38
34	37	**Columbia Gas System** (Wilmington, Del.)	5,835,166	4,052,542	22	(93,832)	48	1,472,688	43
35	●	**MidCon** (Lombard, Ill.)[3]	5,809,878	4,069,695	20	70,004‡	43	1,127,496	49
36	35	**United Telecommunications** (Westwood, Kans.)	5,767,384	3,198,405	26	20,773	47	1,692,348	41
37	38	**Cleveland Electric Illuminating**	5,650,560	1,253,990	48	310,703	29	1,907,741	32
38	39	**Gulf States Utilities** (Beaumont, Tex.)	5,556,245	1,858,436	43	265,499	33	1,893,036	33
39	33	**Texas Eastern** (Houston)	5,391,732	5,457,015	12	40,007	44	1,460,144	44
40	42	**AZP Group** (Phoenix)[4]	5,324,945	1,174,502	49	279,549	32	1,885,495	34
41	41	**PacifiCorp** (Portland, Ore.)	5,121,700	1,983,000	40	248,500	34	1,734,900	39
42	43	**Continental Telecom** (Atlanta)	5,074,236	2,556,617	36	239,855	37	1,412,070	45
43	36	**Panhandle Eastern** (Houston)	5,025,578	2,888,705	30	1[illegible],986	40	1,695,925	40
44	47	**Illinois Power** (Decatur)	4,718,635	1,167,364	50	239,999	36	1,854,457	35
45	48	**MCI Communications** (Washington, D.C.)	4,509,687	2,542,271	37	113,297‡	41	1,318,008	46
46	●	**Williams Companies** (Tulsa, Okla.)	4,337,400	3,139,600	27	31,600	45	1,212,800	48
47	●	**Transco Energy** (Houston)	4,241,056	3,732,514	23	25,661‡	46	865,173	50
48	45	**Baltimore Gas & Electric**	4,183,408	1,754,772	45	247,300	35	1,756,145	36
49	44	**Pacific Lighting** (Los Angeles)	4,132,577	5,083,134	14	155,992	39	1,538,089	42
50	●	**Allegheny Power System** (New York)	4,059,250	1,830,652	44	178,418	38	1,293,143	47
		TOTALS	497,425,060	217,105,585		21,255,330		175,787,814	

● Not on last year's list.

N.A. Not available.

* Average for the year; see the reference to "employees" on page 146.

‡ Reflects an extraordinary charge of at least 10%; see the explanations of "net income" and "earnings per share" on page 146.

§ Dividends paid by company on its mandatory redeemable preferred stock were subtracted from net income in calculating this figure.

[1] Assets are shown as of December 31, 1985, unless otherwise noted. Only assets of consolidated subsidiaries are included.

[2] Gross receipts from operations during the 1985 fiscal year, including any non-utility revenues from manufacturing, transportation, etc., and revenues from discontinued operations when they are published. All companies on the list must have derived more than 50% of their revenues from utility operations.

[3] Figures are for fiscal year ended September 30, 1985.

[4] Formed as a holding company for Arizona Public Service April 29, 1985.

WHO DID BEST AND WORST AMONG THE SERVICE 500

KEY

- **B** Commercial Banking Companies page 126
- **F** Diversified Financial Companies page 130
- **I** Savings Institutions page 132
- **L** Life Insurance Companies page 134
- **R** Retailing Companies page 136
- **S** Diversified Service Companies page 122
- **T** Transportation Companies page 138
- **U** Utilities page 140

TOTAL RETURN TO INVESTORS, 1985

THE TEN HIGHEST

	Rank	
Downey S. & L. Assoc.	I43	568.00%
Columbia S. & L. Assoc.	I16	175.86
Great Lakes Fed. S. & L. Assoc.	I48	163.53
Financial Corp. of Santa Barbara	I35	153.57
Computer Sciences	S87	139.29
Carteret S. & L. Assoc., F.A.	I18	138.21
Charter	S22	137.50
The Limited	R38	132.85
Valley Federal S. & L.Assoc.	I45	130.00
Northeast Savings, F.A.	I26	127.42

THE FIVE LOWEST

United Financial Group	I19	-35.00%
Southland Financial	F48	-31.41
Moseley, Hallgarten, Estabrook & Weeden	F41	-28.95
Pulte Home	S86	-25.22
Texas Commerce Bancshares	B22	-24.76

THE SERVICE 500 MEDIANS

Savings Institutions	71.43%
Diversified Financial	46.37
Commercial Banking	44.59
Retailing	41.06
Diversified Service	36.17
Utilities	31.15
Transportation	24.44
All Industries	*39.84*

Life insurance companies are not included.

RETURN ON SALES

THE TEN HIGHEST

	Rank	
Berkshire Hathaway	S81	52.4%
Exxon Pipeline	T29	37.0
ARCO Pipe Line	T31	36.7
Long Island Lighting	U25	25.8
BP Pipelines	T37	25.3
Cleveland Electric Illuminating	U37	24.8
AZP Group	U40	23.8
Sohio Pipe Line	T24	23.1
Union Electric	U31	21.2
Ohio Edison	U26	21.1

THE SERVICE 500 MEDIANS

	1985	1984
Utilities	12.2%	12.1%
Transportation	3.5	4.1
Retailing	2.7	2.8
Diversified Service	2.0	2.2
All Industries	*3.3*	*3.7*

Commercial banks, diversified financial, savings institutions, and life insurance companies are not included.

TOTAL RETURN TO INVESTORS, 1975-85 AVG.

THE TEN HIGHEST

	Rank	
Pulte Home	S86	56.34%
The Limited	R38	54.04
Berkshire Hathaway	S81	50.41
Humana	S33	46.88
Kelly Services	S77	46.22
Southwest Airlines	T36	45.58
Wal-Mart Stores	R12	45.30
Zayre	R27	44.08
Beverly Enterprises	S42	43.59
Waste Management	S43	43.17

THE FIVE LOWEST

Pittston	S51	-5.27%
Moseley, Hallgarten, Estabrook & Weeden	F41	-4.30
Tiger International	T27	-3.39
Wickes Companies	R24	-1.92
First Pennsylvania Corp.	B75	-1.80

THE SERVICE 500 MEDIANS

Savings Institutions	22.69%
Commercial Banking	22.06
Diversified Service	21.98
Diversified Financial	21.62
Transportation	20.40
Retailing	18.13
Utilities	15.99
All Industries	*20.56*

Life insurance companies are not included.

SALES PER DOLLAR OF STOCKHOLDERS' EQUITY

THE TEN HIGHEST

	Rank	
Frank B. Hall & Co.	F45	$76.70
Roundy's	S40	51.93
Farm House Foods	S58	41.79
Financial Corp. of Santa Barbara	I35	37.44
ARA Holding	S14	33.29
Turner	S34	32.74
Cavenham (U.S.A.)	R35	23.40
Super Food Services	S47	23.32
Associated Milk Producers	S25	21.41
Rapid-American	R40	19.85

THE FIVE LOWEST

Southland Financial	F48	$0.63
Illinois Power	U44	0.63
AZP Group	U40	0.62
Berkshire Hathaway	S81	0.44
Charter	S22	-17.48

THE SERVICE 500 MEDIANS

Retailing	$5.55
Diversified Service	4.85
Transportation	3.61
Savings Institutions	2.92
Diversified Financial	2.53
Utilities	1.15
All Industries	*3.19*

Commercial banks and life insurance companies are not included.

RETURN ON STOCKHOLDERS' EQUITY

THE TEN HIGHEST

	Rank	
Exxon Pipeline	T29	142.3%
Republic Airlines	T17	88.4
Rapid-American	R37	77.4
Texas Air	T14	75.7
Downey Savings & Loan Assoc.	I43	53.4
Financial Corp. of Santa Barbara	I35	49.6
Columbia Savings & Loan Assoc.	I16	45.4
ServiceMaster Industries	S67	43.1
Fremont General	F39	40.3
Warner Communications	S32	37.2

THE SERVICE 500 MEDIANS

	1985	1984
Retailing	14.7%	15.9%
Savings Institutions	13.7	6.9
Commercial Banking	13.0	12.6
Diversified Service	13.0	11.7
Utilities	13.0	13.4
Transportation	11.5	13.6
Diversified Financial	9.4	9.3
All Industries	*12.8*	*12.6*

Life insurance companies are not included.

ASSETS PER EMPLOYEE

THE TEN HIGHEST

	Rank	
Fed. National Mortgage Assoc.	F1	$49,543,362
Student Loan Marketing Assoc.	F12	17,579,254
Kemper Investors Life	L45	16,598,098
DCNY	F29	16,479,988
Bank of Tokyo Trust	B78	14,082,454
Phibro-Salomon	S1	14,063,651
Sohio Pipe Line	T24	13,326,087
First Boston	F5	13,320,981
Columbia Savings & Loan Assoc.	I16	11,242,381
Executive Life	L19	9,329,220

THE FIVE LOWEST

Publix Super Markets	R31	$18,408
Winn-Dixie Stores	R13	16,672
ServiceMaster Industries	S67	15,786
Transworld	R41	15,639
ARA Holding	S14	15,121

THE SERVICE 500 MEDIANS

Savings Institutions	$3,194,823
Commercial Banking	1,487,123
Life Insurance	1,379,230
Diversified Financial	769,265
Utilities	646,567
Transportation	122,681
Diversified Service	90,030
Retailing	34,441
All Industries	*682,227*

WHO DID BEST AND WORST AMONG THE SERVICE 500

KEY

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SALES PER EMPLOYEE

THE TEN HIGHEST

	Rank	
Sohio Pipe Line	T24	$5,673,913
Federal National Mortgage Assoc.	F1	5,171,037
Phibro-Salomon	S1	4,427,937
Bindley Western Industries	S99	4,179,333
Subaru of America	S46	1,746,884
Student Loan Marketing Assoc.	F12	1,560,985
Indiana Farm Bureau Cooperative	S54	1,390,186
Exxon Pipeline	T29	1,300,419
ARCO Pipe Line	T31	1,053,676
Countrymark	S68	984,108

THE FIVE LOWEST

Marriott	R25	$27,929
Transworld	R41	25,312
McDonald's	R29	24,965
Hilton Hotels	S90	20,130
Beverly Enterprises	S42	16,102

THE SERVICE 500 MEDIANS

Diversified Financial	243,284
Utilities	236,258
Diversified Service	185,190
Transportation	119,961
Retailing	86,650
All Industries	195,892

Commercial banks, life insurance companies, and savings institutions are not included.

CHANGES IN SALES

THE TEN BIGGEST INCREASES

	Rank	
Electronic Data Systems	S15	333.3%
Alleghany	F46	97.3
Soo Line	T39	90.3
The Limited	R38	77.7
Old Republic International	F33	70.5
Roundy's	S40	69.4
People Express	T30	66.6
Alexander & Alexander Services	F34	66.0
Circle K	R49	63.5
Price	S39	61.4

THE TEN BIGGEST DECREASES

Charter	S22	39.2%
Farm House Foods	S58	27.3
Cavenham (U.S.A.)	R35	26.4
Tiger International	T27	26.1
Tesoro Petroleum	S30	26.0
IU International	S38	22.8
Whittaker	S56	21.3
Gulf & Western Industries	S12	20.0
Kay	S94	19.5
Montgomery Ward	R17	17.0

THE SERVICE 500 MEDIANS

	INCREASES
Diversified Financial	16.0
Transportation	9.2
Retailing	7.5
Diversified Service	6.8
Utilities	5.3

Commercial banks, life insurance companies, and savings institutions are not included.

CHANGES IN PROFITS

THE TEN BIGGEST INCREASES*

	Rank	
Electronic Data Systems	S15	1123.4%
PSA	T35	1116.1
Commercial Federal Corp.	I41	779.9
Republic Airlines	T17	499.8
Kay	S94	485.0
American Security Corp.	B99	437.7
Coast Savings & Loan Assoc.	I15	374.7
Georgia Federal Bank, F.S.B.	I39	355.3
Great Atlantic & Pacific Tea	R16	353.8
Fremont General	F39	338.1

THE TEN BIGGEST DECREASES*

Ozark Holdings	T45	95.0%
United Telecommunications	U36	91.2
Florida Federal S. & L. Assoc.	I21	87.4
CBS	S8	87.1
Best Products	R39	83.7
Sea-Land	T18	82.4
Transco Energy	U47	81.4
Texas Eastern	U39	81.2
Continental	F16	79.9
Williams Companies	U46	78.9

THE SERVICE 500 MEDIANS

	INCREASES
Savings Institutions	96.8%
Commercial Banking	21.2
Diversified Service	11.7
Retailing	9.7
Utilities	5.7
Transportation	4.4
Diversified Financial	3.8

* Listings exclude money losers.
Life insurance companies are not included.

THE MONEY LOSERS

	Rank	Loss
CIGNA	F6	$732,500,000
Fluor	S10	633,324,000
Halliburton	S9	339,276,000
BankAmerica Corp.	B2	337,215,000
Montgomery Ward	R17	298,000,000
Consumers Power	U22	269,772,000
Home Group	F27	197,000,000*
Trans World Airlines	T10	193,092,000
Hall (Frank B.)	F45	190,548,000*
IU International	S38	173,531,000
GTE	U1	161,091,000
CSX	T3	118,000,000
MGM/UA Entertainment	S97	115,759,000
USF&G	F20	108,083,000
Columbia Gas System	U34	93,832,000
Tesoro Petroleum	S30	87,028,000
Tiger International	T27	72,687,000*
McLean Industries	T25	66,705,000
UAL	T5	48,683,000
GATX	S84	45,500,000
Fireman's Fund	F19	44,000,000*
ENSERCH	S16	38,508,000
Eastern Gas & Fuel Associates	S48	37,008,000
American S.&L. Assoc. of Fla.	I33	33,243,000
Purolator Courier	T34	29,356,000
John Blair	S69	29,151,000
Castle & Cooke	S44	28,587,000*
People Express	T30	27,537,000
CNW	T32	27,412,000
Orion Capital	F50	26,155,000
American Financial	F24	23,100,000*
Perini	S71	17,932,000
Imperial Corp. of America	I12	16,450,000
National Intergroup	S28	15,230,000
InterNorth	S2	14,055,000
Fischbach	S62	10,447,000
Pacific First Financial Corp.	I37	9,840,000
U.S. Home	S74	8,978,000*
Soo Line	T39	8,691,000
Eckerd (Jack)	R33	8,325,000
Moseley, Hallgarten, Estabrook & Weeden	F41	7,889,000
Southland Financial	F48	7,357,000
Alexander & Alexander Services	F34	7,300,000*
First Columbia Financial	I40	5,806,000
Northeast Savings, F.A.	I28	5,108,000
United Financial Group	I22	3,148,000
Cavenham (U.S.A.)	R35	1,897,000*

*Also lost money in 1984.
Life insurance companies are not included.

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ARRIVALS AND DEPARTURES

NEWCOMERS TO THE SERVICE 500

	Rank
Ace Hardware	S65
Alaska Air Group	T49
American Hardware Supply	S100
Bear Stearns Companies	F8
Bindley Western Industries	S99
Business Men's Assurance	F47
Charter	S22
Circle K	R49
Culbro	S73
Dillard Department Stores	R50
Equitable Variable Life	L37
Fireman's Fund	F19
First Kentucky National Corp.	B100
FoxMeyer	S88
Grand Trunk	T50
Gulf & Western Industries	S12
Hardware Wholesalers	S96
Home Group	F27
Indiana National Corp.	B94
Integrated Resources	F42
Lincoln National Pension	L29
Louisiana Bancshares	B96
MidCon	U35
Moseley, Hallgarten, Estabrook & Weeden	F41
National Intergroup	S28
Provident National Assurance	L47
Roundy's	S40
Rykoff-Sexton	S78
Southmark	F37
SouthTrust Corp.	B98
The Limited	R38
Warner Communications	S32
Williams Companies	U46

RETURNED TO THE SERVICE 500*

Alleghany (1982: F33)	F46
Allegheny Power System (1983: U44)	U50
Allstate Life (1981: L50)	L49
Boatmen's Bancshares (1983: B97)	B62
Cincinnati Financial (1982: F95)	F44
DCNY (1982: F99)	F29
ENSERCH (1983: U49)	S16
Fremont General (1983: F97)	F39
Hall (Frank B.) (1983: F96)	F45
Hanover Insurance Companies (1983: F84)	F38
Lomas & Nettleton Financial (1983: F95)	F40
Marsh & McLennan Companies (1982: F85)	F49
Michigan National Corp. (1983: B46)	B60
Overnite Transportation (1983: T47)	T47
Orion Capital (1982:F100)	F50
PHH Group (1983: S93)	S89
Soo Line (1980: T48)	T39
Southland Financial (1983: F92)	F48
Transco Energy (1983: U43)	U47
United States Leasing Internat'l (1983: F90)	F43

DISPLACED FROM THE SERVICE 500

	1984 rank
Arrow Electronics	S80
AGRI Industries	S26
American Family	F87
American General	F11
American Hospital Supply[1]	S14
American Natural Resources[2]	U46
Bank of New England[3]	B58
Brown Group	R47
CFS Continental[4]	S43
Cox Communications[5]	S78
Capital Holding	F37
Capitol Life	L47
Chicago Mil. St. Paul & Pacific RR[6]	T50
DEKALB AgResearch	S91
Donaldson Lufkin & Jenrette[5]	F33
Early & Daniel Industries	S90
Evans Products	R50
First Florida Banks	B100
Farmland Industries[7]	S7
First Atlanta Corp.[8]	B54
Frontier Holdings[9]	T36
Harvest States	S12
Home Life	L49
Landmark Banking Corp. of Florida[10]	B99
Minstar[7]	T38
Monarch Capital	F78
Northern Indiana Public Service	U49
Northern States Power	U50
Orbanco Financial Services	F96
Pacific Resources[7]	S36
Provident Life & Accident	L46
Provident Mutual	L50
Public Service Co. of Indiana	U40
Ramada Inns	S97
SCOA Industries	R49
Torchmark	F54
Transway International[5]	S67
Trust Co. of Georgia[11]	B62
Union Equity Co-Operative Exchange	S96
Western Co. of North America	S100

* Figures in parentheses indicate year and rank the last time the company was listed.

[1] Acquired by Baxter Travenol Laboratories (No. 160 on the FORTUNE 500) November 25, 1985.

[2] Acquired by Coastal (No. 50 on the FORTUNE 500) March 15, 1985.

[3] Merged into CBT Corp. (1984 rank: B55) June 14, 1985.

[4] Acquired by Staley Continental (No. 137 on the FORTUNE 500) November 20, 1984.

[5] Figures no longer made public.

[6] Acquired by Soo Line (T39) February 19, 1985.

[7] Reclassified as an Industrial.

[8] Merged into First Wachovia Corp. (B29) December 5, 1985.

[9] Acquired by People Express (T30) November 22, 1985.

[10] Merged into Citizens & Southern Georgia Corp. (B35) August 30, 1985.

[11] Merged into SunTrust Banks (B24) July 1, 1985.

Savings institutions that were included on the Diversified Financial list in the past are not listed above as displaced. They are not large enough to appear on the Savings Institutions list.

NOTES TO THE SERVICE 500

Assets
Assets are those shown at the company's fiscal year-end.

Net Income
Net income is shown after taxes and after extraordinary credits or charges if any are shown on the income statement. A double asterisk (**) signifies an extraordinary credit reflecting at least 10% of the net income shown, a double dagger (‡) an extraordinary charge of at least 10%. Figures in parentheses indicate a loss.

Stockholders' Equity
Stockholders' equity is the sum of capital stock, surplus, and retained earnings at the company's year-end. Redeemable preferred stock is excluded if its redemption is either mandatory or outside the control of the company, except in the case of cooperatives. For purposes of calculating "net income as percent of stockholders' equity," any dividends paid on redeemable preferred stock, if that stock's redemption is either mandatory or outside the control of the company, have been subtracted from the net income figure.

Employees
The figure shown is a year-end total except when it is followed by an asterisk (*), in which case it is an average for the year.

Earnings per Share
For all companies the figures shown are the primary earnings per share that appear on the company's income statement. These figures are based on a weighted average of the number of common shares and common stock equivalents outstanding during the year. Per-share earnings for 1984 and 1985 are adjusted for stock splits and stock dividends. They are not restated for mergers, acquisitions, or accounting changes made after 1975. A double asterisk (**) signifies an extraordinary credit reflecting at least 10% of the net income shown, a double dagger (‡) an extraordinary charge of at least 10%. Figures in parentheses indicate a loss. Results are listed as not available (N.A.) if the companies are cooperatives, joint ventures, or wholly owned subsidiaries of other companies, or if the figures were not published in 1975. The growth rate is the average annual growth, compounded. No growth rate is given if the company had a loss in either 1975 or 1985.

Total Return to Investors
Total return to investors includes both price appreciation and dividend yield to an investor in the company's stock. The figures shown assume sales at the end of 1985 of stock owned at the end of 1975 and 1984. It has been assumed that any proceeds from cash dividends, the sale of rights and warrant offerings, and stock received in spinoffs were reinvested when they were paid. Returns are adjusted for stock splits, stock dividends, recapitalizations, and corporate reorganizations as they occur; however, no effort has been made to reflect the cost of brokerage commissions or of taxes. Results are listed as not available (N.A.) if shares are not publicly traded or are traded on only a limited basis. If companies have more than one class of shares outstanding, only the more widely held and actively traded has been considered.

Total return percentages shown are the returns received by the hypothetical investor described above. The ten-year figures are annual averages, compounded. If corporations were substantially reorganized—e.g., because of mergers—the predecessor companies used in calculating total return are the same as those cited in the footnotes to the earnings-per-share figures.

Most of the figures in the FORTUNE Service 500 Directory were prepared by reporter Douglas Steinberg. The figures on per-share earnings and on total return to investors were prepared by Claudine Knight. ■

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COMPANY	RANK
A	
AMR	T6
ARA Holding	S14
ARCO Pipe Line	T31
AZP Group	U40
Ace Hardware	S65
Aetna Life	L4
Aetna Life & Annuity	L26
Aetna Life & Casualty	F3
Ahmanson (H.F.)	I2
Airborne Freight	T48
Alaska Air Group	T49
Albertson's	R20
Alco Standard	S13
Alexander & Alexander Services	F34
Alexander & Baldwin	T44
Alleghany	F46
Allegheny Power System	U50
Allied Bancshares	B42
Allied Stores	R26
Allied Van Lines	T42
Allstate Life	L49
American Broadcasting	S17
American Capital Corp.	I33
American Continental Corp.	I25
American Electric Power	U13
American Express	F2
American Financial	F24
American General Life & Accident	L32
American Hardware Supply	S100
American Information Technologies	U8
American International Group	F11
American Medical International	S31
American National	L41
American President Companies	T26
American Savings Bank	I31
American S.&L. Assoc. of Fla.	I40
American Security Corp.	B99
American Stores	R5
AmeriTrust Corp.	B57
Amfac	S26
AmSouth Bancorp.	B82
Anixter Bros.	S98
Arkansas Best	T40
Associated Dry Goods	R22
Associated Milk Producers	S25
Atlantic Financial Federal	I28
Automatic Data Processing	S63
Avnet	S45
B	
BATUS	R15
BP Pipelines	T37
Bally Manufacturing	S50
Baltimore Gas & Electric	U48
Banc One Corp.	B40
Bancorp Hawaii	B92
Bank of Boston Corp.	B14
Bank of New England Corp.	B28
Bank of New York Co.	B27
Bank of Tokyo Trust	B78
Bank of Virginia Co.	B58
BankAmerica Corp.	B2
Bankers Life	L12
Bankers Trust New York Corp.	B8
Barnett Banks of Florida	B34
BayBanks	B70
Bear Stearns Companies	F8
Bell Atlantic	U4
BellSouth	U2
Beneficial	F18
Bergen Brunswig	S27
Berkshire Hathaway	S81
Best Products	R39
Beverly Enterprises	S42
Bindley Western Industries	S99
Blount	S79
Boatmen's Bancshares	B62
Browning-Ferris Industries	S55
Burlington Northern	T1
Business Men's Assurance	F47
C	
CBS	S8
CIGNA	F6
CNW	T32
CSX	T3
Caesars World	S95
CalFed	I4
California First Bank	B77
Carolina Freight	T43
Carolina Power & Light	U30
Carter Hawley Hale Stores	R28
Carteret Sav. & Loan Assoc.	I18
Castle & Cooke	S44
Cavenham (U.S.A.)	R35
Centerre Bancorp.	B83
Centex	S53
Central & South West	U29
CenTrust Savings Bank	I22
Charter	S22
Chase Manhattan Corp.	B3
Chemical New York Corp.	B6
Chubb	F25
Cincinnati Financial	F44
Circle K	R49
Citadel Holding Corp.	I34
Citicorp	B1
Citizens & S. Georgia Corp.	B35
CityFed Financial Corp.	I11
Cleveland Electric Illuminating	U37
Coast Savings & Loan Assoc.	I15
Columbia Gas System	U34
Columbia Savings & Loan Assoc.	I16
Combined International	F30
Comerica	B45
Commerce Bancshares	B85
Commercial Federal Corp.	I41
Commercial Metals	S64
Commonwealth Edison	U11
Computer Sciences	S87
Connecticut General Life	L9
Connecticut Mutual	L16
Consolidated Edison	U19
Consolidated Freightways	T15
Consumers Power	U22
Continental	F16
Continental Assurance	L24
Continental Bancorp	B89
Continental Illinois Corp.	B12
Continental Telecom	U42
CoreStates Financial Corp	B38
Countrymark	S68
Crocker National Corp.	B25
CrossLand Savings	I14
Culbro	S73
D	
DCNY	F29
Dairymen	S61
Dayton Hudson	R10
Delta Air Lines	T8
Detroit Edison	U18
Di Giorgio	S59
Dillard Department Stores	R50
Dominion Bankshares	B90
Dominion Resources	U23
Downey Savings & Loan Assoc.	I43
Dravo	S76
Duke Power	U24
Dun & Bradstreet	S20
Dynalectron	S92
E	
ENSERCH	S16
Eastern Air Lines	T7
Eastern Gas & Fuel Associates	S48
Eckerd (Jack)	R33
Electronic Data Systems	S15
Emery Air Freight	T33
Equitable Life Assurance	L3
Equitable Variable Life	L37
European American Bancorp	B66
Executive Life	L19
Exxon Pipeline	T29
F	
FPL Group	U20
Far West Financial	I47
Farm & Home Savings Assoc.	I38
Farm House Foods	S58
Farmers Group	F31
Federal Express	T13
Fed. National Mortgage Assoc.	F1
Federated Department Stores	R8
Fidelcor	B65
Financial Corp. of America	I1
Financial Corp. of Santa Barbara	I35
Fireman's Fund	F19
First of America Bank Corp.	B79
First American Bankshares	B74
First American Corp.	B87
First Bank System	B15
First Boston	F5
First Chicago Corp.	B10
First City Bancorp. of Texas	B30
First Columbia Financial	I46
First Federal of Michigan	I8
First Federal Savings Bank of Arizona	I17
First Fidelity Bancorp.	B36
First Interstate Bancorp	B9
First Kentucky National Corp.	B100
First Maryland Bancorp	B91
First Pennsylvania Corp.	B75
First Security Corp.	B80
First Tennessee National Corp.	B81
First Union Corp.	B32
First Wachovia Corp.	B29
First Wisconsin Corp.	B68
Fischbach	S62
Fleet Financial Group	F21
Fleming Companies	S5
Florida Federal S.&L. Assoc.	I21
Florida National Banks of Florida	B73
Fluor	S10
Food Lion	R47
Foster Wheeler	S52
FoxMeyer	S88
Franklin Life	L40
Freedom Savings & Loan Assoc.	I42
Fremont General	F39
G	
GATX	S84
GEICO	F32
GTE	U1
Gelco	S66
General American Life	L39
General Public Utilities	U32
General Re	F23
Genuine Parts	S29
Georgia Federal Bank	I39
Giant Food	R42
Gibraltar Financial Corp.	I10
Glendale Federal Sav. & Loan Assoc.	I6
Golden West Financial Corp.	I7
Grainger (W.W.)	S57
Grand Trunk	T50
Great Amer. First Savings Bank	I12
Great Atlantic & Pacific Tea	R16
Great Lakes Fed. S.&L. Assoc.	I48
Great Western Financial Corp.	I3
Greyhound	S23
Guarantee Finan. Corp. of Cal.	I37
Guardian of America	L42
Gulf States Utilities	U38
Gulf & Western Industries	S12
H	
Hall (Frank B.)	F45
Halliburton	S9
Hanover Insurance Companies	F38
Hardware Wholesalers	S96
Harris Bankcorp	B48
Hartford National Corp.	B53
Hilton Hotels	S90
Holiday	S41
Home Fed. S.&L. Assoc. (San Diego)	I9
Home Fed. S.&L. Assoc. (Tucson)	I49
Home Group	F27
Homestead Financial Corp.	I23
Hospital Corp. of America	S11
Household International	R11
Houston Industries	U21
Howard Savings Bank	I30
Humana	S33
Huntington Bancshares	B71
Hutton (E.F.) Group	F9
I	
IDS Life	L18
IU International	S38
Illinois Central Gulf Railroad	T28
Illinois Power	U44
Imperial Corp. of America	I13
Indiana Farm Bureau Coop.	S54
Indiana National Corp.	B94
Integrated Resources	F42
InterFirst Corp.	B19
interNorth	S2
Interpublic Group of Companies	S93

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Irving Bank Corp. B20

J

John Blair S69
John Hancock Mutual L6

K

K mart R2
Kansas City Southern Industries T46
Kaufman & Broad S75
Kay S94
Kelly Services S77
Kemper F17
Kemper Investors Life L45
KeyCorp B61
Kroger R4

L

Leaseway Transportation T22
Limited (The) R38
Lincoln National F15
Lincoln National Life L22
Lincoln National Pension L29
Loews F10
Lomas & Nettleton Financial F40
Long Island Lighting U25
Louisiana Bancshares B96
Lowe's Companies R43
Lucky Stores R9

M

MCorp B18
MCA S35
MCI Communications U45
MGM/UA Entertainment S97
Macy (R.H.) R23
Manufacturers Hanover Corp. B4
Manufacturers National Corp. B63
Marine Midland Banks B16
Marriott R25
Marsh & McLennan Companies F49
Marshall & Ilsley Corp. B88
Maryland National Corp. B56
Massachusetts Mutual L11
May Department Stores R19
Mayflower T38
McDonald's R29
McKesson S7
McLean Industries T25
Mellon Bank Corp. B11
Melville R21
Mercantile Bancorp. B64
Mercantile Stores R46
Mercury Savings & Loan Assoc. I50
Meridian Bancorp B72
Merrill Lynch F4
Metropolitan L2
Michigan National Corp. B60
MidCon U35
Middle South Utilities U12
Midlantic Banks B41
Minnesota Mutual Life L44
Montgomery Ward R17
Morgan (J.P.) & Co. B5
Morrison Knudsen S36
Moseley, Hallgarten, Estabrook & Weeden F41
Mutual of America Life L46
Mutual Benefit L15
Mutual of New York L14

N

NBD Bancorp B31
NCNB Corp. B23
NIKE S72
NWA T12
NYNEX U3
Nash-Finch S49
National City Corp. B37
National Intergroup S28
National Investors Pension L50
National Life L43
National Medical Enterprises S24
National Westminster Bank USA B44
Nationwide Life L20
New England Mutual L13
New York Life L5
New York Life Insurance & Annuity L30
Niagara Mohawk Power U27
Norfolk Southern T9
Norstar Bancorp B49
Northeast Savings, F.A. I26
Northeast Utilities U33
Northern Trust Corp. B59
Northwestern Mutual L10
Northwestern National L33
Norwest Corp. B21

O

Ohio Casualty F35
Ohio Edison U26
Old Kent Financial Corp. B95
Old Republic International F33
Old Stone Corp. I29
Orion Capital F50
Overnite Transportation T47
Ozark Holdings T45

P

PHH Group S89
PNC Financial Corp B26
PSA T35
Pacific First Financial Corp. I32
Pacific Gamble Robinson S85
Pacific Gas & Electric U7
Pacific Lighting U49
Pacific Mutual L25
Pacific Telesis Group U5
PacifiCorp U41
Paine Webber Group F14
Pan Am T11
Panhandle Eastern U43
Parker Pen S80
Penn Mutual L31
Penney (J.C.) R6
Pennsylvania Power & Light U28
People Express T30
Perini S71
Perpetual American Bank I27
Phibro-Salomon S1
Philadelphia Electric U17
Philadelphia Savings Fund Society I5
Phoenix Mutual L27
Piedmont Aviation T21
Pioneer Hi-Bred International S83
Pittston S51
Price S39
Provident National Assurance L47
Prudential L1
Public Service Electric & Gas U16
Publix Super Markets R31
Pulte Home S86
Purolator Courier T34

R

RCA S3
Rainier Bancorp. B52
Rapid-American R40
Reliance Group Holdings F26
Republic Airlines T17
Republic New York Corp. B33
RepublicBank Corp. B17
Revco D.S. R37
Riggs National Corp. B76
Roadway Services T19
Roundy's S40
Ryder System S19
Rykoff-Sexton S78

S

SAFECO F28
Safeway Stores R3
St. Paul Companies F22
Santa Fe Southern Pacific T4
Sea-Land T18
Sears Roebuck R1
Security Capital F36
Security Pacific Corp. B7
Service Merchandise R36
ServiceMaster Industries S67
Shawmut Corp. B55
Society Corp. B50
Society for Savings I44
Sohio Pipe Line T24
Soo Line T39
South Carolina National Corp. B97
Southeast Banking Corp. B39
Southern U10
Southern California Edison U14
Southern States Cooperative S91
Southland R7
Southland Financial F48
Southmark F37
SouthTrust Corp. B98
Southwest Airlines T36
Southwestern Bell U6
Southwestern Life L23
Sovran Financial Corp. B46
State Farm Life L17
State Mutual of America L35
State Street Boston Corp. B67
Stop & Shop Companies R30
Student Loan Marketing Assoc. F12
Subaru of America S46
Sunkist Growers S82
SunTrust Banks B24
Super Food Services S47
Super Valu Stores S6
Supermarkets General R18
Sysco S21

T

Tandy R34
Teachers Insurance & Annuity L8
Tesoro Petroleum S30
Texas Air T14
Texas American Bancshares B69
Texas Commerce Bancshares B22
Texas Eastern U39
Texas Utilities U15
Third National Corp. B84
Tiger International T27
Toys "R" Us R44
Trans World Airlines T10
Transamerica F13
Transamerica Life & Annuity L38
Transamerica Occidental Life L28
Transco Energy U47
Transworld R41
Travelers L7
Travelers Corp. F7
Turner S34

U

UAL T5
USAir T16
USF&G F20
Union Bancorp B47
Union Electric U31
Union Mutual L34
Union Pacific S4
United Banks of Colorado B86
United Financial Group I19
United Jersey Banks B93
United of Omaha Life L48
United Parcel Service T2
U.S. Bancorp B51
U.S. Home S74
United States Leasing Internat'l F43
U.S. Shoe R45
U S West U9
United Telecommunications U36
United Van Lines T41
United Virginia Bankshares B54
Univar S70
Universal Leaf Tobacco S60

V

Valley Federal S.&L. Assoc. I45
Valley National Corp. B43
Variable Annuity Life L21

W

Wal-Mart Stores R12
Waldbaum R48
Walgreen R32
Walt Disney Productions S37
Warner Communications S32
Washington Mutual Savings Bank I24
Waste Management S43
Wells Fargo & Co. B13
Western Air Lines T23
Western Capital Investment Corp. I36
Western Savings & Loan Assoc. I20
Western & Southern Life L36
Wetterau S18
Whittaker S56
Wickes Companies R24
Williams Companies U46
Winn-Dixie Stores R13
Woolworth (F.W.) R14

Y

Yellow Freight System T20

Z

Zayre R27

JUNE 23, 1986

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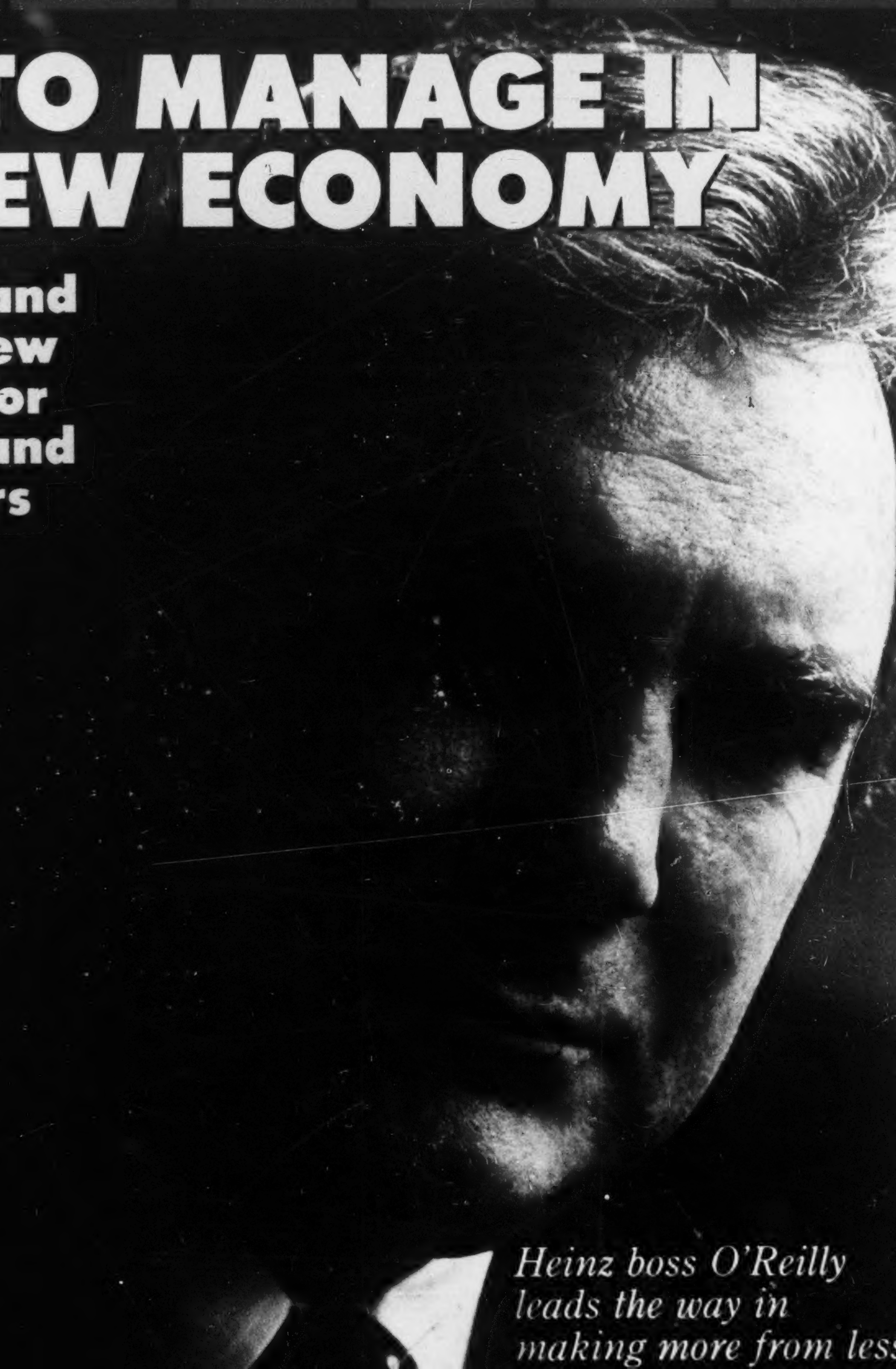
FORTUNE

HOW TO MANAGE IN THE NEW ECONOMY

Cost-cutting and the global view will pay off for companies—and their investors



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Heinz boss O'Reilly leads the way in making more from les

JUNE 23, 1986

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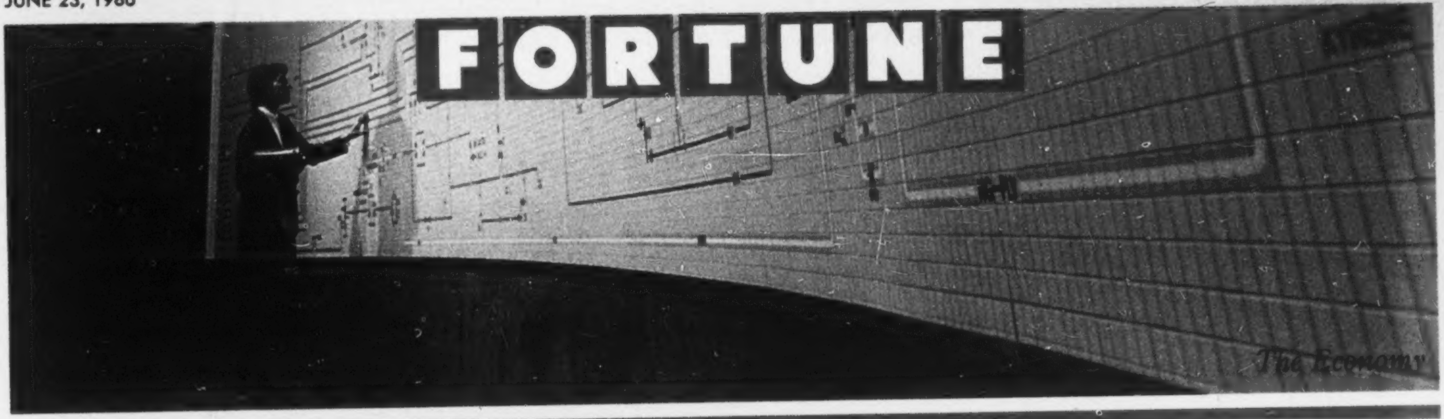

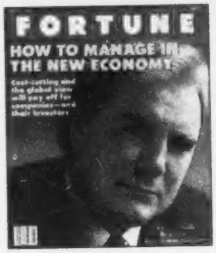

For the cover, Alen MacWeeney photographed a chief executive who responded early and successfully to the new economy. See page 18.

THE ECONOMY/SPECIAL REPORT

America's New Economy 18
Falls in inflation, interest rates, the dollar, and oil prices have created a new world. Prospects are the brightest in decades. *by Arthur M. Louis*

How to Manage in It 21
Can't cover sins with inflationary price increases? Here are new skills managers need.

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AMERICA'S NEW ECONOMY

WHO WILL GAIN

Almost everybody will, but not equally. Young people's prospects will brighten. The fortunes of old folks will dim.

Like plants that pop up and thrive as an ice age recedes, jobs should flourish beneath the warm sun of the new economy. The 3%-a-year growth anticipated by the economists surveyed by FORTUNE should bring a gratifying increase in consumer buying power. Unlike the gentle rain from heaven, though, these benefits will not fall equally on all. Who gains how much will depend on what a person does, where he lives, and whether he is young, old, or somewhere in between.

According to the Bureau of Labor Statistics, employers will hire 14.6 million more workers by 1995 if the economy grows roughly 3% a year. That's 4.1 million more new jobs, the BLS says, than would be created if the economy grew only 2.2% a year, as it has since the early Seventies. Wallets will bulge with extra money. After adjusting for inflation, the BLS says, faster growth would send disposable income per capita percolating up at a 1.6% annual rate till 1990, instead of the 1.2% associated with lower economic growth. For a family of four with today's median income of $31,100 a year, that spells a $2,000 rise in after-tax purchasing power over the next four years.

Many occupations would grow fast whether the economy sped up or not, among them accounting and nursing. But the extra boost from a stronger economy will fuel even more demand. For example, computer programmers, already in short supply, will find employers pursuing them all the more ardently (see chart).

Some jobs that languish in the economy's backwaters in hard times will get a special kick out of faster growth. Typists have been losing out to computers; their numbers will now creep up instead of shrinking. Jewelers and silversmiths will proliferate as the increase in income lifts demand for luxuries.

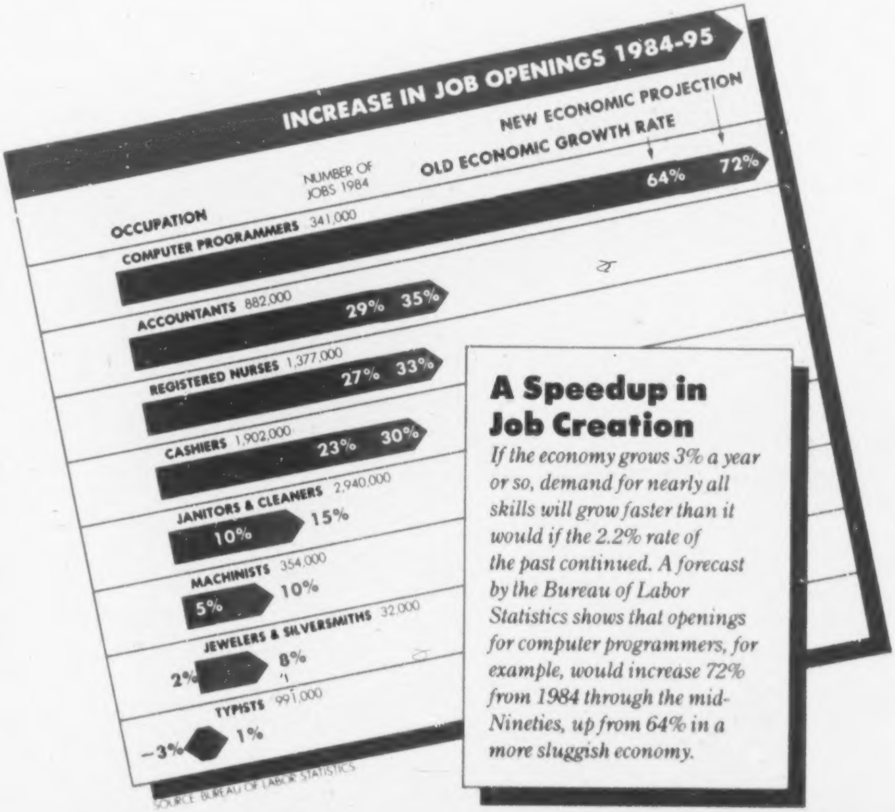
Job seekers will have better luck in some parts of the country than in others. Pickings should be especially good in New England, where high-technology openings promise to keep multiplying. The Southeast will benefit from both the growth of high-tech industries and an influx of retirees. The new economy will reverse the rust belt's decline. Cheap oil, which puts money in consumers' pockets, will help. That is good news for makers of durable consumer items like heavy appliances and automobiles, whose manufacture is concentrated in the Midwest.

Data Resources Inc., an economic forecasting firm in Lexington, Massachusetts, has projected the impact of declining oil prices on jobs in various parts of the country. For every dollar the price of oil falls below $18 a barrel, the firm says, five industrial states—Illinois, Michigan, Ohio, Pennsylvania, and New York—should see total employment rise 8,000 to 12,000. Oil-producing Texas could lose from 17,000 to 29,000 jobs.

The fortunes of both the poor and the rich will improve. The poor will gain as economic growth brings an expansion of relatively unskilled jobs. The rich will benefit because they are the largest holders of financial assets, which tend to perk up when inflation is low. The middle class, including baby boomers who had a rocky time as they crowded into starting jobs in recent years, will also gain. Now just beginning to move into their middle years, the 25- to 35-year-olds of a decade ago are mostly seasoned, productive workers ready to take advantage of the economy's effervescence.

But pity the old. High interest rates on bonds and an indexed, inflation-proof Social Security system have made this group by far the biggest gainers in recent years. Chase Econometrics projects that their income growth will slow over the next four years. But the old will be exceptions: Most Americans will experience better times than they have in years.

—Myron Magnet



SOURCE: BUREAU OF LABOR STATISTICS

A Speedup in Job Creation

If the economy grows 3% a year or so, demand for nearly all skills will grow faster than it would if the 2.2% rate of the past continued. A forecast by the Bureau of Labor Statistics shows that openings for computer programmers, for example, would increase 72% from 1984 through the mid-Nineties, up from 64% in a more sluggish economy.

A SALES KICK FROM BEER WITHOUT THE BUZZ

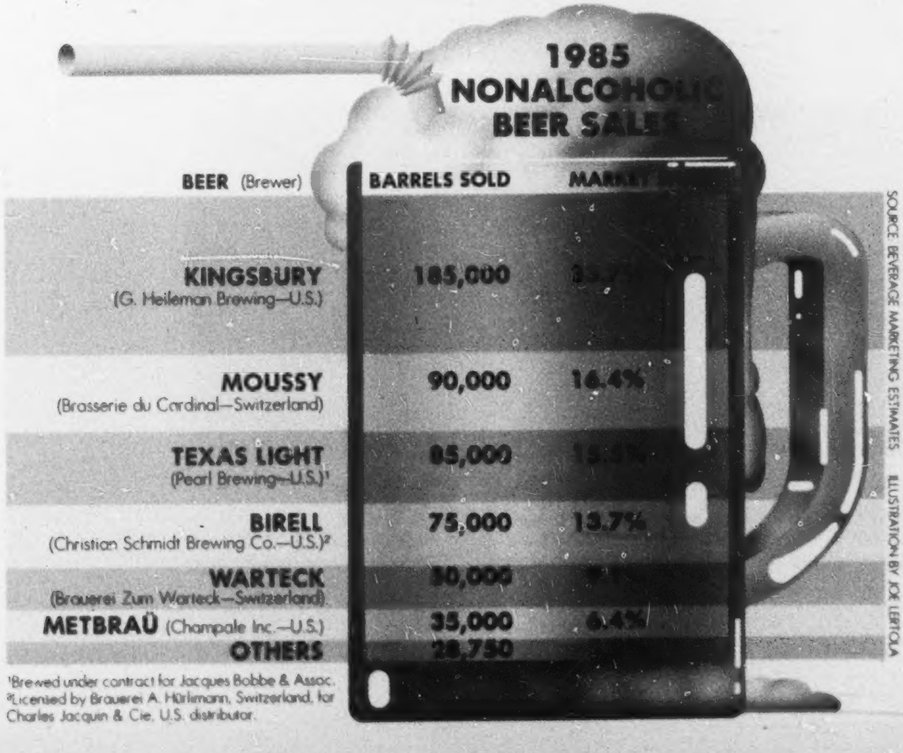
Beer consumption is flat, but sellers are finding sparkle in brew without alcohol. A marketing problem: They can't call it beer.

NONALCOHOLIC BEER, once dismissed by lovers of the real stuff as a pale potion without a punch, is coming out of its corner for another round. Brewers are introducing brands they say taste better, and as the beer-drinking season nears they are hawking old products with new advertising.

Sales of nonalcoholic beer rose 25% last year, to 549,000 barrels. The total market, far huger at 183 million barrels, grew only 0.3%. Makers of nonalcoholic beer are benefiting from the trends toward fitness and moderate drinking: sober suds contain only about 50 calories per 12-ounce bottle, compared with 100 or so in light beer, which is about 4.2% alcohol, and 150 in regular beer, with 4.7% alcohol. Low-alcohol beer, with 2.3% alcohol, looked like a potential winner a few years ago but has flopped. Sales fell some 7% last year to about 500,000 barrels.

The battle among the biteless brews has been foaming in the past few months. In March, Stroh Brewery Co. began importing Barbican, a nonalcoholic beer produced by Britain's Bass Brewery. Last year G. Heileman Brewing Co., whose Kingsbury brand is the top seller in the U.S. with 33.7% of the market, introduced Black Label Non-Alcoholic Malt Beverage. And industry experts say Miller Brewing may be cooking up a nonalcoholic beer, though the Milwaukee brewer denies it. In May, Switzerland's Moussy, the No. 1 imported nonalcoholic beer, launched a $2-million ad campaign, spending 25% more than last year. Even Guinness, the high priest of dark and bitter stout, has plunged into the market with Kaliber, which Guinness executives compare in taste to Heineken, the No. 1 U.S. imported beer. Guinness began selling Kaliber in New York last year and has expanded distribution to 30 states.

Beer industry executives say that nonalcoholic beer is aimed at adults over 25, primarily male. Concern about getting too tipsy to drive could boost sales at bars and restaurants, but marketers hoping to play up that angle face a new problem: if the brew can't make you drunk, you can't call it beer. In April a ruling by the Treasury Department went into effect prohibiting brewers from calling their beverages beer if the products are less than 0.5% alcohol. Permitted terms include malt beverage and brew. If the brews contain just a trace of alcohol—and most do—sellers cannot call them alcohol free. Nonalcoholic is the strongest claim allowed. Beer executives admit the rules could hurt sales, and Moussy executives say they will fight them. **—Michael Rogers**



1985 NONALCOHOLIC BEER SALES

BEER (Brewer)	BARRELS SOLD	MARKET
KINGSBURY (G. Heileman Brewing—U.S.)	185,000	33.7%
MOUSSY (Brasserie du Cardinal—Switzerland)	90,000	16.4%
TEXAS LIGHT (Pearl Brewing—U.S.)[1]	85,000	15.5%
BIRELL (Christian Schmidt Brewing Co.—U.S.)[2]	75,000	13.7%
WARTECK (Brauerei Zum Warteck—Switzerland)	50,000	[illegible]
METBRAÜ (Champale Inc.—U.S.)	35,000	6.4%
OTHERS	28,750	

[1] Brewed under contract for Jacques Bobbe & Assoc.
[2] Licensed by Brauerei A. Hürlimann, Switzerland, for Charles Jacquin & Cie, U.S. distributor.

SOURCE: BEVERAGE MARKETING ESTIMATES ILLUSTRATION BY JOE LERTOLA

GOING FOR BROKERS

RE/MAX offers a deal that real estate agents like.

WANTED: Top real estate salesmen. Highest commissions paid. Independence guaranteed. Beginners need not apply.

Thousands of real estate agents, lured by that pitch, have been joining franchises of RE/MAX International, possibly the fastest-growing residential real estate brokerage in the U.S. Since 1982 it has nearly quadrupled its agents to 11,500.

The key to RE/MAX's sucess is the way it runs its offices. In a conventional setup agents split their 5% to 7% commission on sales with the brokerage's owner. He pays for rent, advertising, and other overhead, and keeps the rest as profit. Under RE/MAX's system, agents get the whole commission. They split the overhead bill among themselves and pay a monthly management fee to the office owner, who purchased the franchise for between $15,000 and $25,000; the owner sends 15% of his fees back to regional and national headquarters. Beginners cannot afford the typical agent's annual bill of $12,000 to $15,000, but big producers earn more than they would under the 50-50 split.

Smaller brokerages are trying the 100% concept, and RE/MAX founder David Liniger, 40, says he is pondering other applications. That could mean travel or insurance agencies, or other businesses where superstar salesmen bring in profits that help support the tyros. **—Edward C. Baig**

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FORTUN

WHAT WELCH HAS WROUGHT AT GE

PLUS:

THE AIR TRAVEL MESS

BACK FROM THE BRINK WITH TED TURNER

But even after his flashy MGM deal, he faces more perils than Pauline

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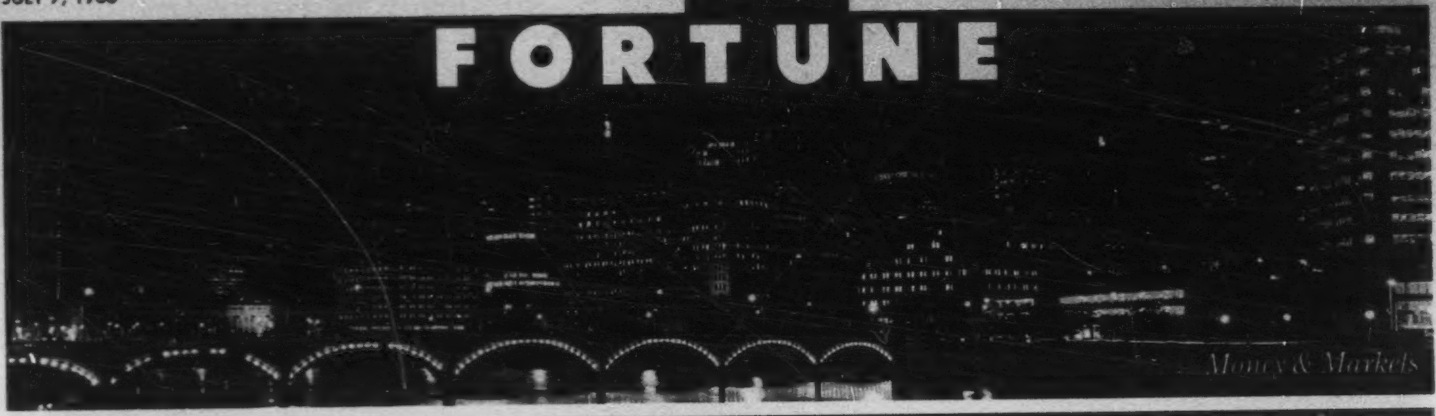

FORTUNE
BACK FROM THE BRINK WITH TED TURNER

For the cover, Antonin Kratochvil photographed one of America's most daring entrepreneurs. See page 24.

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example. These are hardly the bastions of opportunity for office computers.

ROBERT A. YELLOWLEES
President, AMTEL Consulting Group
American Telesystems Corp.
Atlanta

When I mentioned the conclusions reached in your article to my secretary, her response was, "That's absurd." I must agree.

Senior personnel at almost every business and professional organization with which I have contact concluded not only that computerization has increased their staffs' productivity enormously, but that their organizations could not function without widespread access to computers. Relying on anecdotal evidence, I can state that many "products" turned out by law firms cost less, are better, and are completed in a fraction of the time, compared with even five years ago.

PAUL A. PENSIG
Partner, Pensig & Uhl
Beverly Hills, California

To judge the impact of office computers on the entire economy, I suggest you look to the U.S. share of world markets for white-collar (science- and technology-based) products and America's relative standard of living. You do the nation a disservice by encouraging management doubt about the payoff of office automation when evidence of significant strategic returns is at hand.

N. DEAN MEYER
Ridgefield, Connecticut

You conclude that computers' payoff is puny because "productivity has grown more slowly in the computer age than it did before computers came into wide use." Using the same reasoning, I'd like to point out that the PC revolution has reduced the cost of oil, spurred the popularity of videocassette recorders, and led to the Mohawk hairstyle.

MARK J. CHUSSIL
Director, Business-Unit Strategy Program
The Strategic Planning Institute
Cambridge, Massachusetts

Executive Ghostwriters (cont'd)

I had just finished talking with the head of a FORTUNE 500 company, who called to thank us for a speech our firm had drafted for him, when I read David Finn's article advising top executives to write their own speeches ("Exorcise the Executive Ghostwriters," Other Voices, May 26).

Would it really serve the corporation or the stockholders for this executive to spend many hours—instead of the 2½ hours he spent, mostly with our interviewer—on that project? After all, it is not his performance as a speechmaker that justifies his large salary.

Most top executives deal orally with decisions and issues. They review written reports and approve or revise them. Why do they have to change the rules for preparing speeches?

MARION BUHAGIAR
Partner, Expert Connections
New York City

What Did the Boss's Mother Do?

It is no surprise to see only two women C.E.O.s in the FORTUNE 500 in 1986 ("Atop the FORTUNE 500: A Survey of the C.E.O.s," April 28). But it *is* a surprise in 1986 that FORTUNE, while including "what their fathers did" in the survey data, did not also include "what their mothers did."

Perhaps in a future survey there will be more women C.E.O.s; "what their mothers and fathers did" will be important survey data; and mothers as well as fathers will be viewed as important role models, whether they are full-time mothers, working women, or career women.

FRAN SHELLENBERGER
Lanham, Maryland

A Novel Approach to Terrorism

Re "Coping With the Fear of Terror" (May 26): The fear of hijacking has scared many people away from traveling to Europe, with Pan Am and TWA losing a lot of business. To deal with this problem, I propose that each overseas airline passenger be provided with a .22-caliber automatic pistol and two extra clips of shells. Thus, when the hijackers attempt to take over the plane, there will be a shootout. The hijackers will be shot, and there will be a few casualties among the passengers. The bullets could be of a brittle material that would shatter before penetrating the cabin wall.

Certainly there is an element of risk in providing pistols, and it may be there would be some accidents or misuse of the weapons. On the other hand, there is much more risk for the passengers not to be armed in a bad sitution hundreds of miles from land and police protection.

ROBERT A. HEGEMAN
Trumbull, Connecticut

Correction

The FORTUNE *Service 500 (June 9) should have listed Pacific Mutual Life Insurance Co.'s increase in life insurance in force as $3,925,176,000 (rank: No. 20).*

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MANAGING

THE WORSENING AIR TRAVEL MESS

With the number of passengers and flights steadily growing, the system is bumping up against its physical limits. The result: more hassles, deteriorating service, and an ominous increase in near misses. If bad weather hits this summer, watch out.

■ *by Jeremy Main*

Oh, how was your trip?

Are you kidding? When I got to the terminal, the line for tickets stretched all the way out to the sidewalk. Every seat was taken, and a lot of people got left behind. The guy next to me was in his undershirt and barefoot. The air conditioning didn't seem to be working, the air was foul, and I felt dopey the whole trip. The john was a mess. The seats were worn and scruffy. And the traffic made us two hours late.

Why in the world did you go by bus?

What bus? I flew.

THAT'S AIR TRAVEL, 1986. Flying, once a rather glamorous experience, is today's mass transportation. This summer promises to be particularly uncomfortable for the air traveler in the U.S., especially the businessman, who must often fly to the busiest airports at the worst times. It will also pose big challenges to people who run the airlines. With luck, the next few months won't be as trying as the summer of 1984, when a shortage of air traffic controllers combined with horrendous weather to cause record delays. Since then, though, passenger volume has grown by 5.5% a year, and fear of flying abroad this year seems likely to increase the load of passengers on domestic flights. Bad weather, which still can slow up air traffic more than any other problem, could make a lot of people wish they had, well, taken the bus.

The deregulation of U.S. airlines that began in 1978 has brought air travel within the means of millions, and that, of course, is laudable. Flying remains a safe way to travel. But as air traffic volume repeatedly breaks records—the one-day high of 111,152 flights under U.S. air traffic control was set on June 5, and it probably won't last long—the airport system keeps bumping up against its physical limits. That means even more crowded terminals, jam-ups in the parking lots and access roads, harassed ticket agents, and, worst of all, flight delays.

RESEARCH ASSOCIATE *Lynn Fleary*

John R. Huggins, president of Woodside Management Systems Inc., the largest U.S. corporate travel agent, echoes a common warning: "We can expect delays and inconvenience, which will be at a maximum in the peak summer months. The efficiency of the business traveler will be significantly decreased." Daniel T. Smith, manager of consumer and industry affairs for the Airline Passengers Association, anticipates considerable "inconvenience and delay," and he doesn't see much relief in the foreseeable future. "It's a matter of physics. The system can accommodate only so many planes."

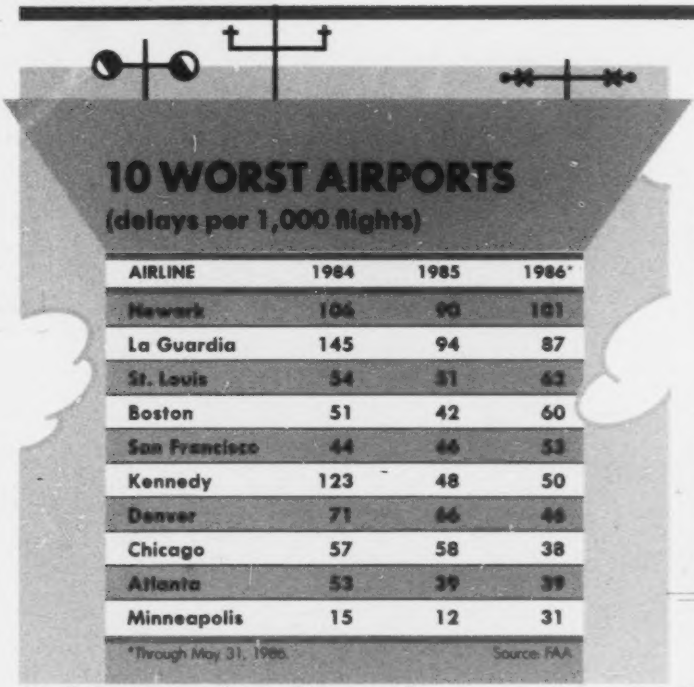
While passengers tend to remember the horror stories about air travel—the fistfight in Honolulu on a Sunday afternoon because the airlines had overbooked flights back to the mainland—the statistics suggest less dramatic deterioration, but deterioration nonetheless. Judging from data collected by the government, the quality of service is declining (see left chart, page 54). Complaints by passengers to the Department of Transportation, flight delays, and the bumping of passengers from overbooked flights all have increased in the past year and a half.

Unprecedented fines levied by the Federal Aviation Administration on American Airlines, Continental, and Eastern Air Lines for maintenance violations also signal declining standards. The FAA charged Eastern with infractions such as extending the interval between overhauls of its Boeing 727s without government approval. American was fined for failing to fix a leaky toilet. The problem was not merely hygienic: Water escaping to the outside of the plane formed a chunk of ice that knocked off an engine in midflight. Fatal accidents on scheduled flights remain rare, but the number of near misses on the runways and in the air have increased ominously, suggesting that overworked and perhaps inexperienced controllers may be having trouble keeping planes sorted out.

Considering the chaotic state of the industry, it is not surprising airlines are having trouble maintaining standards. Robert L. Crandall, chairman of American, has noted that since deregulation, 72 new airlines have started, and 33 have disappeared. In the first quarter alone, the industry lost $500 million.

The major reason for the deterioration of service, though, is the overburdened system of airports and airways. The number of passengers in the U.S. has risen from 292 million on 14.7 million commercial flights in 1980 to a predicted 392 million on 19.2 million flights this year. The FAA foresees over 650 million passengers and 26.4 million flights in 1997. This growth will have to fit in a system already strained at peak hours.

If only travelers would distribute their movements evenly around the clock and around the country, the system would have plenty of capacity. Trouble is, people have the awkward habit of all going to the same places at the same times. Fly to New York, St. Louis, or Denver at the start or end of a business day, and you can count on a delay. The FAA tots up a delay when a plane is more than 14 minutes late. On average, about 34 flights out of every 1,000 have been delayed in recent months. So far this year, 85% of those delays came about because of traffic at eight airports: Atlanta, Boston, Chicago, Denver, La Guardia, Newark, St. Louis, and San Francisco. Newark, struggling with an increase of daily People Express flights from zero to 440 in six years, accounted for 18% of all delays in the first five months of 1986. Delays at those



10 WORST AIRPORTS
(delays per 1,000 flights)

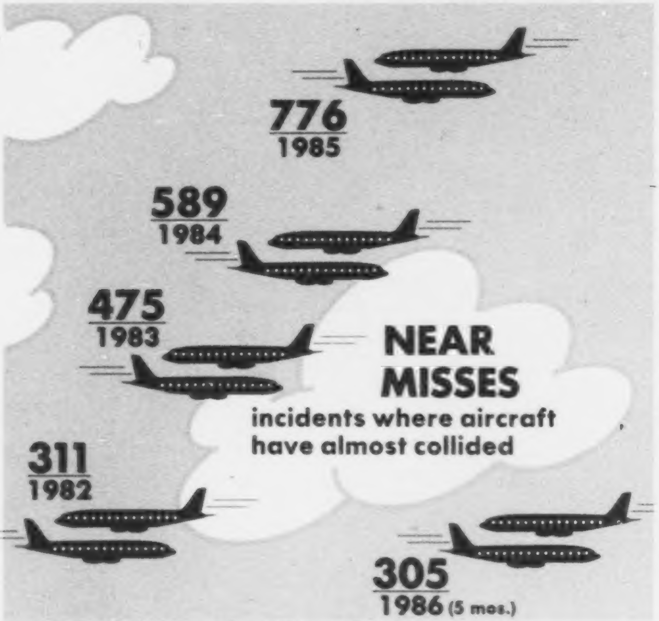
AIRLINE	1984	1985	1986*
Newark	106	90	101
La Guardia	145	94	87
St. Louis	54	51	63
Boston	51	42	60
San Francisco	44	46	53
Kennedy	123	48	50
Denver	71	66	46
Chicago	57	58	38
Atlanta	53	39	39
Minneapolis	15	12	31

*Through May 31, 1986.

Source: FAA

Going Round and Round

As traffic increases, delays mount at major airports. Even before the summer crush this year, some airports reported more delays than in 1984, a particularly bad year. At peak hours, of course, the totals exceed those cited above. Any flight over 14 minutes late is counted as delayed.



Getting Closer in the Sky

Near misses have increased steadily for five years. Five months into 1986, more incidents had been reported than in the same period of 1985. The FAA records a near miss when two aircraft pass within less than 1,000 feet of each other vertically or less than five miles horizontally.

eight cities are far more than 34 in 1,000.

Since deregulation the entire system has been made more susceptible to delay by the emphasis the airlines have put on so-called hub-and-spoke operations. Squadrons of planes converge on a single airport at a peak period to swap passengers and transfer them to the outbound spokes of the system. That makes business sense because the hubs capture customers from the farthest reaches of the system. But when a hub is hit by bad weather—for example, summer turns the Mississippi valley into thunderstorm alley and socks in the St. Louis airport—the whole wheel comes apart.

Airline executives argue that delays could be cut radically if the FAA and the Department of Transportation would hire more controllers. The FAA now has some 14,000 of them, 2,000 fewer than before the 1981 strike. A $12-billion federal plan to modernize airports and air traffic control is far behind schedule. The reason: the Reagan Administration will not spend the money accumulating by the billions in a government trust fund financed by airport taxes levied on passengers and freight. Some $4 billion is uncommitted in the trust fund, helping the Office of Management and Budget make the federal deficit appear smaller, but not helping the airlines or their passengers at all.

The Air Transport Association, which represents the major carriers, would like air traffic control put under a semiprivate corporation that would respond more to airlines' needs. The corporation would collect the airport taxes that now get swallowed up in the trust fund and use the money to operate and improve air traffic control. The FAA would retain airline inspection and certification functions. Then, says Thomas G. Plaskett, an American Airlines senior vice president, today's capacity problems would be solved.

GOVERNMENT OFFICIALS, predictably, do not agree. James R. Smith, who worries about airport capacity for the Department of Transportation, points to some steps that are already being taken to increase the capacity of the system. New microwave landing aids, more intensive use of parallel and intersecting runways to speed the flow of traffic, and other improvements will help a bit. Miami is widening taxiways, Phoenix is building a new terminal, and Dallas-Fort Worth is adding a runway. But these improvements will add only marginally to capacity. Says Smith, "You can do just so much with existing facilities, and then you have to find more landing places. The ultimate solution is more airports."

No major new airports have been built since Dallas-Fort Worth opened in 1974, and with one exception, none is likely to be built for a long time. More airports did not seem necessary until traffic exploded after deregulation; now it's hard to find a community that will not fight plans to create an airport nearby. Only Denver has approved a new airfield.

The airlines will be bumping up against capacity limits for years to come. Access to key airports during peak hours remains among the more valuable assets an airline can own. Pan Am recently paid Texas Air $65 million to acquire three gates at Boston and La Guardia and 64 landing slots at La Guardia and National Airport in Washington to serve Pan Am's new shuttle service.

The ability to reduce and cope with delays and other problems varies dramatically from one carrier to another. Department of Transportation figures show, for example, that American Airlines, one of two major carriers to make a profit in the first quarter, drew only about one-fifth as many complaints per 100,000 passengers as People Express, the archetypal no-frill discounter. In the three months ending in March, passengers complained about People twice as often as they did about any other major airline.

continued

A PIONEERING AIRLINE C.E.O. LOOKS AHEAD

■ *Originally a bitter opponent of airline deregulation, Francisco A. Lorenzo ("Please call me Frank") is now its leading exponent. Through Texas Air Corp., the holding company of which he is chairman and chief executive, Lorenzo, 46, reigns over Continental Airlines, New York Air, and Jet Capital Corp., a financial holding company. Texas Air's acquisition of Eastern, which may be completed by August, could make Lorenzo's airline system the largest in the U.S. He built it by piling up debt, defying unions, and skillfully steering that airline through Chapter 11 reorganization. "People still think of me as a financial guy," he says. "I have very little to do with that. I'm the guy who determines the marketing equation and figures out how to make a company work." In an interview with* FORTUNE *writer Roy Rowan, Lorenzo explained what he thinks airlines have to do to improve service and how the Eastern acquisition fits into his vision of the industry's future.*

ARTHUR MEYERSON

CONTINENTAL

Frank Lorenzo, *Texas Air's chief executive*

On why airlines are receiving so many complaints: Before deregulation this was an industry that was responsive to the government, not the consumer. The changeover still needs to be worked through so more attention is paid to the passenger, particularly in ticketing and assuring a hassle-free trip. Ironically, Continental and the other low-fare airlines tend to generate more than their share of complaints. Most complaints involve misunderstandings about reduced fares. Also, when your plane is completely full it's going to put pressure on your service.

On the hazards of the fare wars: The big, high-priced airlines are known for bait and switch. When customers call up and can't get the advertised but highly restricted fare, they often decide to buy a ticket at the much higher regular rate. You'll never catch American or United advertising its regular fare. This deception puts carriers like Continental and People Express that have genuine low fares at a disadvantage. We're trying to sell our customers on straightforwardness and simplicity. We say, "Call us, and the price you see advertised is the price you get." But it's very hard for us to keep to those virtuous beliefs—we lose a lot of passengers.

On overbooking problems: We, like everybody else in the industry, make our money at 5 P.M. and have to fill our seats at such peak hours. Even then, no-show rates run in the 20% range. So as an industry we have to overbook. Under the economics of deregulation we can pass on the financial gain from flying full airplanes to the passenger in the form of a lower fare. Nevertheless, we're starting to put a charge on a change in reservations—a 25% cancellation fee on restricted fares. I think it's only a matter of time before we adopt the theater ticket concept—if you don't go, you lose your money.

On Eastern's marketing strengths: People like to fly with an airline that goes to a lot of places and sells all kinds of tours through packagers and travel agents. When you operate 60% of the flights out of a city like Miami, as Eastern does, and are the biggest buyer of discounted hotel space for package tours, you're going to get most of the business. Another of Eastern's marketing advantages is its computerized reservations system. One of Continental's disadvantages is not having a reservations system that connects with the travel agents' computers. This is crucial since 70% of all bookings come through travel agents. After the merger Continental will be plugged into Eastern's reservations system.

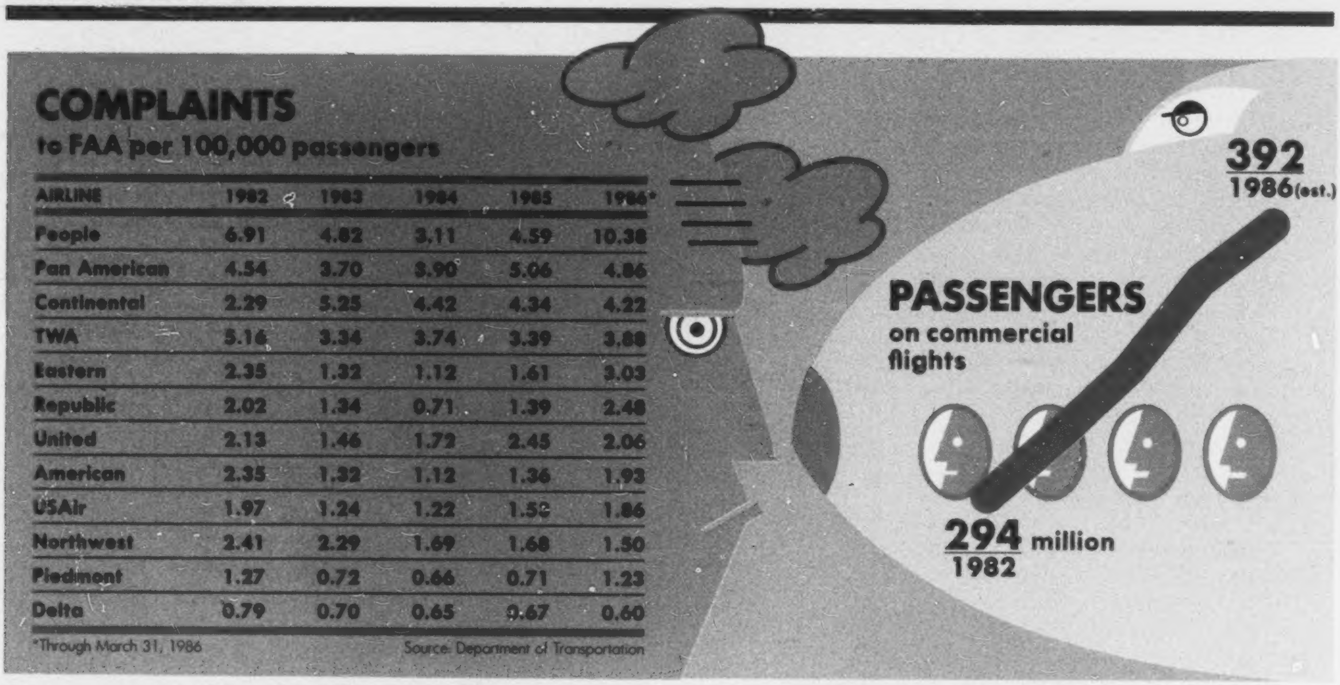
On Texas Air's financial strength: Texas Air has a strong balance sheet—our debt is long term and the interest on it manageable. New York Air and Continental have both grown tremendously. Continental earned $61 million in 1985, $11 million more than in 1984. It may seem remarkable, but this airline has 74% more capacity than it did prebankruptcy. It should be out of Chapter 11 within 60 days. The plan has already been approved by all but two out of several hundred creditors.

On the possibility of more union resistance to changes management might make at Eastern: At Continental we have a record of attacking core problems. The union leaders know that. They're going to have to be realistic about the changes that are necessary. Strikers returned to Continental with a changed attitude. They now realize what they were getting from the unions was pure gibberish. Recently, however, the unions have been hearing the call for low costs even from the most robust companies. I think the message is beginning to sink in.

On what the merger means to air travelers: Whether we cut Eastern's fares will depend on what makes sense. That, of course, would put further pressure on costs. Other airlines cut costs by cutting services. They take the cherries off the desserts and ticket agents off the counters. Customers notice these things. But the companies have to make these savings because they're still paying their senior pilots $125,000 for flying 50 hours a month. Our basic philosophy will be to provide consumers with what they demand of an air transportation product—full-service flights at low fares.

On whether deregulation has gone too far: You either have freedom of the marketplace or you don't. Ten years ago we had an industry where you never could make much money. Now the upside opportunities are vastly improved. But deregulation also provided an opportunity for airlines to fail.

On the formation of what Lorenzo calls megalines: In the postderegulation era, first there was the new airline phase. Then came the consolidation and cost-cutting phase. Now we're heading into the megaline phase, which will leave the U.S. with from five to eight major carriers, instead of a dozen or so today.



COMPLAINTS
to FAA per 100,000 passengers

AIRLINE	1982	1983	1984	1985	1986*
People	6.91	4.82	3.11	4.59	10.38
Pan American	4.54	3.70	3.90	5.06	4.86
Continental	2.29	5.25	4.42	4.34	4.22
TWA	5.16	3.34	3.74	3.39	3.88
Eastern	2.35	1.32	1.12	1.61	3.03
Republic	2.02	1.34	0.71	1.39	2.48
United	2.13	1.46	1.72	2.45	2.06
American	2.35	1.32	1.12	1.36	1.93
USAir	1.97	1.24	1.22	1.52	1.86
Northwest	2.41	2.29	1.69	1.68	1.50
Piedmont	1.27	0.72	0.66	0.71	1.23
Delta	0.79	0.70	0.65	0.67	0.60

*Through March 31, 1986

Source: Department of Transportation

Passengers Are Getting Madder

There's a swelling number of written and phone complaints from passengers to the Department of Transportation about airline service. The department figures that for every complaint it receives, the airlines get ten. Most of the gripes concern delays, lost baggage, and fares. Of course, many aggrieved people never write or call.

But More Are Flying

The hassles of air travel haven't stopped the growth of air traffic. In the last decade, the number of passengers flying every year has climbed by about 100 million. The FAA expects an increase of another 250 million in the next ten years.

Yet People Express's phenomenal success in attracting passengers spawned so many imitators that today 88% of passengers travel on discount tickets. Other airlines have managed to bring down prices by cutting their own costs and going to two-tier pay systems. United, for instance, pays its bottom-tier starting pilots $1,527 a month, compared with People's starting rate of $1,833. TWA pays new stewardesses $12,000 a year compared with People's $17,000 for new "customer service managers." All of which suggests that price competition will continue, drawing even bigger crowds to the already crowded skies.

EVERY AIRLINE overbooks to make up for the inevitable no-shows, who suffer no penalty other than the possible loss of a cheap fare requiring advanced booking. The trick for the airline is to gauge the no-shows to a fine point, and that has become harder because bookings have increased. The result for some carriers has been an increase in bumpings: Passengers with reservations find that there is no place for them aboard their scheduled flight. People's relatively unsophisticated reservations system led to hundreds of bumpings last winter. In December the rate averaged 36 passengers bumped per 10,000, far above the industry average. American, by comparison, bumped only one in 40,000 passengers involuntarily in December, partly because it pays generously in cash or tickets for volunteers to give up their seats on overbooked planes.

Passengers complain that fares are too complicated to understand, vary too much, and sometimes change, if not quite in midflight, at least after reservations have been made. Pan Am recently offered a one-way flight on a 747 between New York and Los Angeles for as little as $99, while American's advance-purchase special-coach round-trip ticket on a DC-10 cost $248 and its regular round-trip ticket $980. All three prices bought basically the same transportation.

A New York businessman says that he made a reservation to fly to Oakland last fall on People for $119. When his girlfriend later made a reservation on the same flight, the price had gone up to $149. Once they were airborne—which is when People collects the fares—they were told the price was $199. He refused to pay more than $149 and, he says, persuaded 22 passengers to sign a petition stating they had to pay more than the price quoted when they made their reservations. The Oakland police were waiting for him at the airport, but he was released after some questioning and arguing. People's managing officer for marketing, Stephen Schlachter, replies that the company never raises rates once the flights are put on sale. For instance, People is now accepting reservations through September 14 and promises not to raise any rates on flights up to that date. But he agrees that misunderstandings have occurred.

Airline service also shows the strain of price wars and tight budgets in small ways. When foul-ups leave passengers stranded overnight, most lines are less likely than before deregulation to pay for meals and hotels—unless the plane is diverted to an unexpected destination. In-flight feeding, which for years has been among the more degrading experiences of modern life, is not improving. In a survey of what the airlines spent feeding their captive diners in the third quarter of 1985, *Air Transport World* found a range from USAir's low of $2 per meal to a high of $6.06 at Northwest and Pan Am. Not much room for filet mignon on those budgets. For a while after TWA flight attendants went on strike against the carrier's new owner, Carl Icahn, and his new work rules, TWA stopped serving hot meals entirely. The 2,800 new stewardesses hired and trained in a hurry did not have time to learn how to handle the ovens. Eventually they got further training in-flight, and TWA resumed serving hot meals on May 26.

According to some not unbiased observers, even the quality of air in the cabins may be suffering. Matthew Finucane, director of flight safety for the Association of Flight Attendants, claims that some airlines, which he will not identify publicly, try to save fuel by decreasing air circulation in flight, resulting in too little oxygen and too much pollution in the air. "Attendants sometimes work in a blue haze and show signs of disorientation and numbness," he says. The airlines emphatically deny that cockpit crews ever reduce air circulation to save fuel.

SAYS KELLY NELSON, a senior vice president of Ask Mr. Foster Travel Service: "The airlines are cutting corners. I notice a deterioration in things like the maintenance of carpets and seats. But I strongly believe that the safety standards are kept up to the old levels."

Travelers' prospects are not completely cheerless. Low fares without frills have become too commonplace to be sure-fire competitive winners, so travelers are beginning to see some return to amenities. Pan Am says its new Boston-New York-Washington shuttles will offer full service, which presumably will mean a chance to gulp a drink and bolt a snack during the brief flight. After a three-month experiment with no frills, Frontier, owned by People, went back to full service recently. People Express itself appears to want to move up the social ladder; the line already offers first-class service on international and transcontinental flights and will add it on all other flights this summer.

Most lines have cut their operating costs to where they can compete with the discounters. Fuel prices have fallen sharply. A study by Salomon Brothers, the investment banking firm, finds "the airline industry's financial health has improved dramatically." The author, Julius Maldutis, says he was amazed how rapidly the airlines recovered between 1983 and 1985 from the profit decline that came after deregulation. The industry could be highly profitable this summer, he says.

Pan Am and People Express still need strong turnarounds to put them in good health, as do Texas Air's Continental and Eastern, which Texas Air is acquiring. But Republic and USAir have already bounded back. American, Delta, Northwest, Piedmont, and United remain financially strong.

Don't get your hopes up, though. Renewed financial strength will not lift air travel back to its glory days before it became mass transit. The beleaguered traveler may encounter an unexpected touch of class here and there, but price cutting, cost cutting, and passenger volume will continue to rule the industry. ◘

PAINKILLERS

■ The business traveler has less choice about when and where to fly, and thus may suffer more hassles than the vacation traveler. But there are ways of reducing the irritation:

▶ Avoid, if possible, flying at the busiest times, the early mornings and late afternoons of weekdays. For reasons travel experts haven't fathomed, Thursday has become the most crowded day of the week.

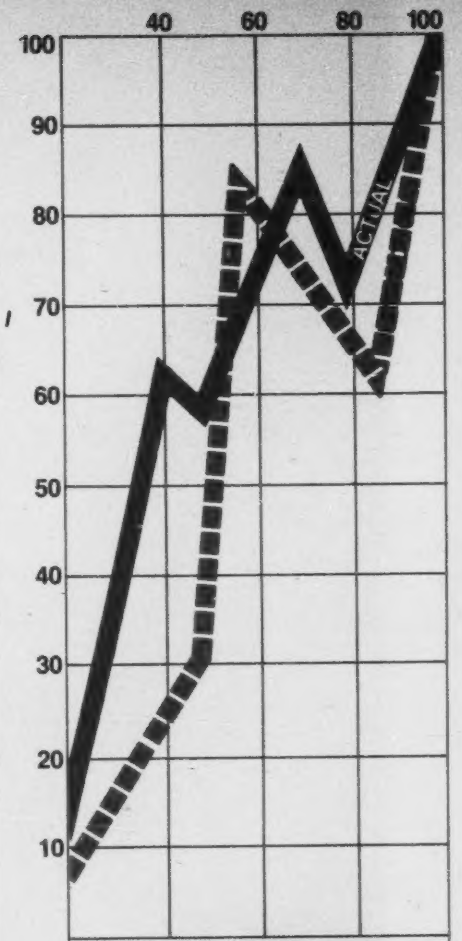
▶ Arrange a routing that will skip the busiest airports (see left chart, page 52). Take direct flights when possible and if you must change planes, try to avoid delay-prone hubs such as Newark, Atlanta, and Chicago.

▶ Call before going to the airport to see if flights are delayed. Because of crowds, security checks, and the threat of being bumped, check in for a flight an hour or so early. If you can get a seat assignment and boarding pass in advance, so much the better.

▶ Look for a lower fare, even when your employer is paying. Traveltron (714-851-8073) will give free information by phone on the cheapest available fares. The Ask Mr. Foster agency keeps a computerized data base on bargain fares, updated daily, for its customers.

▶ Learn the rules about what airlines are obliged to do when flights are delayed or you are bumped. For instance, if a flight is delayed more than an hour and another airline can get you to your destination sooner, most carriers will put you on the other flight and absorb any extra cost—but they are not likely to offer the alternative unless you ask. Assuming you have checked in on time, an airline can't bump you until it has first asked for volunteers. These and other rules are explained in a booklet available for $2 from one of the Ralph Nader organizations (*Facts and Advice for Airline Passengers*, Aviation Consumer Action Project, P.O. Box 19029, Washington, D.C. 20036).

▶ Carry all your luggage with you on board, as savvy air travelers have done at least since the invention of the hanging garment bag. If you must check a suitcase, don't put in it anything you might need within 24 hours, or the only copy of your millionaire uncle's will.



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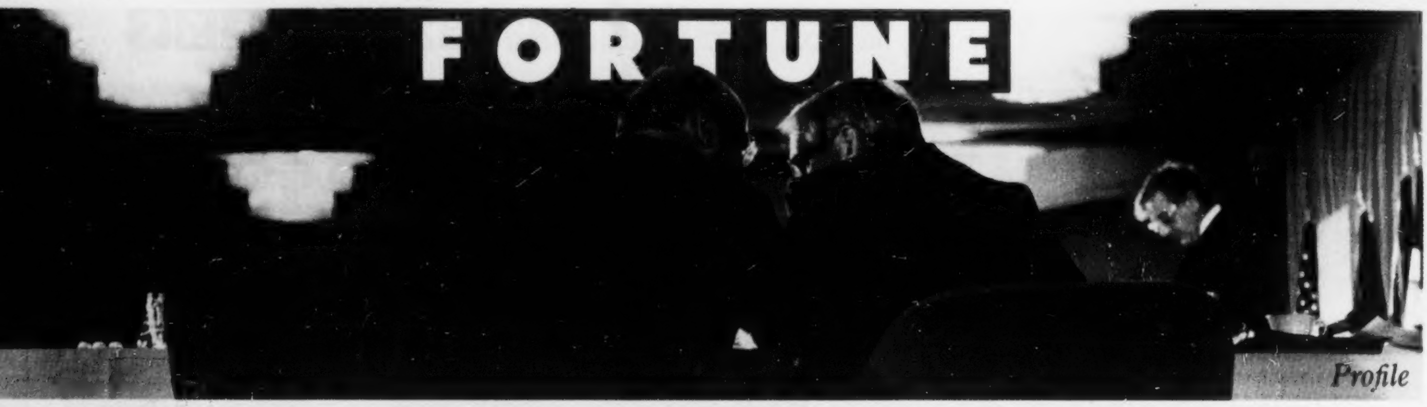

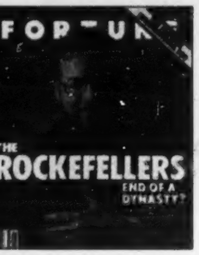

Villiam Coupon's over subject osed outside his family office," which lls three floors in Rockefeller Center's RCA Building. ee page 26.

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up there and voting for them.

The court ruled that Gramm-Rudman violated the Constitution's separation of powers by giving the comptroller general, a legislative official, the power to impose spending cuts, usurping executive responsibility. Gramm-Rudman's sponsors immediately said they would seek to make the comptroller independent of Congress, but they probably will not be able to muster enough votes. In that case, says Republican Senator Warren Rudman of New Hampshire, "Congress will be forced to bite the bullet and make the necessary cuts."

SHEPARD SHERBELL—PICTURE GROUP

Rudman: biting the bullet

The first round should be relatively painless. Last March the comptroller trimmed $11.7 billion from the 1986 budget, and Congress is expected to approve his reductions. Then comes the hard part. The Gramm-Rudman timetable calls for a 1987 deficit of $144 billion. FORTUNE does not expect Congress to meet that target (see The Economy). But even partial success will probably mean deep cuts in military spending and a possible tax increase—both of which would put Capitol Hill on a collision course with the White House.

THE COST OF BAD CREDIT

	DECEMBER 1985 CREDIT CARD BALANCES	AVERAGE LOAN LOSSES IN 1985
Citicorp	$9 billion	3.86%
Bank of America	$4.3 billion	3.22%
Chase Manhattan	$3.3 billion	3.23%
First Chicago	$3.2 billion	3.01%
Manufacturers Hanover	$1.5 billion	2.06%

SOURCE: KEEFE BRUYETTE & WOODS INC.

The rising loan losses coincide with pressure for lower rates.

Problems in plasticland

■ Back in 1984 U.S. banks littered the landscape with plastic in a drive for new credit card customers. Now they are paying for it. Loan losses on cards issued during the 1984 campaign are running at an estimated 8% to 10% of the outstanding balances. The result is a disquieting rise in loan losses on total portfolios—new and old cards—at a time when the industry may be on the brink of a rate war. Mighty **Citicorp**, which probably has the most plastic floating around, heads the list. Losses on its total credit card loans are now running at just over 5%—or about $1 million a day. While Citicorp is willing to pay that price for expanding its national market, other banks may soon be looking for new credit managers. "If losses hit 5% at some banks, you'll see mass executions," says Joel Friedman, a bank management consultant at Arthur Andersen & Co.

Still, no one is hanging black crepe in the credit department just yet. When new customers sign up in droves, it takes time to sort out the deadbeats. Meanwhile, most banks are making solid profits on their plastic. Short-term interest rates have been falling for two years, but credit card rates remain stuck in the high teens. Even with the higher losses, after-tax returns on assets are a healthy 2% or so in an industry where anything over 1% is unusual.

Can it last? Several states are pressing for lower credit card rates. The greatest pressure is in Connecticut, where a state usury law limits rates to 15%. Shortly after the law was enacted in June, a few banks touched off a price war that pushed rates below 12%. Reproduced on a national scale, that sort of competition could leave the landscape splattered with red ink. Says Robert Albertson, a managing director at Smith Barney: "At 15% probably three-quarters of all card issuers will be under water."

Hard times for the people at People

■ It cost **People Express** many millions and eight painful months to learn that its new shoes were too big. Last November People Express spent $100 million to buy Frontier Airlines. Now it will sell Frontier to United Airlines for $146 million, after absorbing the estimated $70 million in losses Frontier has racked up since November. (In accepting United's bid, People rejected a $236-million takeover offer from **Texas Air**.) The sale should buy People some needed time. "It's sink or swim from here on in," says David Sylvester, an analyst with Montgomery Securities.

Sylvester doubts that anyone will want to acquire People Express now; Frontier was its most valuable asset. If someone is interested, he says, People's selling price will be at best $6 a share, far less than the $9 a share offered by Texas Air. Employees, who own about 25% of the company, have worked for low wages and done a variety of jobs (pilots have often checked luggage). They could buy People stock at what seemed like bargain prices. But at $6 a share—only a quarter of the price in 1983—most employees would

A pilot (and shareholder) checks baggage at People's Newark terminal.

ANDREW POPPER—PICTURE GROUP

SOUTH AFRICA: TIME TO STAY—OR GO?

U.S. companies that keep operating there face steadily mounting criticism at home. But pulling out probably would not force change, or at least not the change most reformers have in mind. And what happens to the employees whom companies leave behind?

■ *by Lee Smith*

PERHAPS no other market has ever required so much anguish for so little reward as South Africa. The directors of some U.S. corporations now spend considerable amounts of their time justifying to shareholders and clergymen as well as to themselves why they still do business in a country ruled by racists. And a meager business at that. Only a handful derive more than 2% of their sales from that tortured nation of 32 million; the return on U.S. investment there is puny.

The soul-searching among U.S. managers over what to do about their South African operations has taken on a new urgency because there may not be much time left for deliberation. The state of emergency proclaimed by the government is a desperate, despotic step in a country that appears to be falling apart piece by piece. The government jails suspected troublemakers along with peaceful protestors; blacks kill other blacks, apparently in some cases at the provocation of government agents; a bomb explodes a block away from IBM's headquarters in Johannesburg. American executives, who a year ago were generally willing to talk about their hopes for compromise and peaceful solution in South Africa, have fallen silent.

Other voices have been raised to a shout. In a flash of anger the House of Representatives passed a bill that would ban all U.S. trade with South Africa except for strategic materials, require all American companies to shut down operations there within 180 days, prohibit all loans to South African companies, and bar South African Airways from U.S. airports. The Senate Foreign Relations Committee is beginning hearings on similar proposals. While President Reagan opposes such broad economic sanctions, he has not said he would veto a bill enacting them.

Many U.S. companies aren't waiting for the government to yank them out. In the past two years the number with factories or offices in South Africa has dropped from over 325 to about 265. Ten or so have withdrawn this year, including Eaton, Bell & Howell, and General Electric. In April GE sold its subsidiaries, ending an enterprise that began in 1894 when it started selling lighting equipment in Johannesburg. IBM, one of the ten largest U.S. employers in South Africa and a leader in programs for black advancement, has let its work force dwindle from over 1,900 a year ago to about 1,600. That shrinkage makes customers wonder whether IBM will be around tomorrow to service the computers it wants to sell today.

When long-entrenched GE packs up and IBM appears to waver, is it time for other sensible corporations to clear out? The answer does not come easily or unequivocally, but for now it is no.

Involvement in South Africa is still worth agonizing over, and an impressive band of companies, including General Motors, Mobil

PETER MAGUBANE—GAMMA/LIAISON

As Xerox *wrestles with pressures for withdrawal, it worries about the fate of managers like Frank Mothapo (left) and Wellington Mnikati (right), shown with their boss, local managing director David English.*

By remaining, *GM may help train the next generation of first-line managers.*

Oil, and Coca-Cola, continue to stick it out. The moral argument for staying is substantially better than the one for leaving. The economic case for hanging in also seems stronger than the case for quitting, though not by much.

South Africa's black leaders disagree on whether U.S. corporations should leave. Chief Mangosuthu G. Buthelezi, the leader of nearly seven million Zulus, wants them to stay. The increasingly powerful African National Congress wants them out, and so does Nobel laureate Desmond Tutu, the Anglican bishop of Johannesburg. Tutu argues that an American pullout is the kind of radical international action that will be necessary to shock the South African regime into negotiating an end to apartheid. He points out that the government permitted integrated sports contests only after foreign authorities banned South Africa's white athletes from world events. But token integration on the playing field is a far cry from integrating a whole society.

The threat of economic isolation is not likely to bring the government to its knees. True, it would drag down further an economy that is already leaden, burdened by drought, low world prices for its commodities, high interest rates, and inflation. Withdrawal also might use up some of the capital South Africans have available for investment. European companies are under pressure to leave too, so the likely buyers for American-owned businesses would be South Africans; commonly these days a departing company sells out to its local managers. If a flock of American companies were to depart in a hurry, they would probably have to sell cheap, perhaps for 20 cents on each $1 of assets. The Commerce Department calculates the total U.S. investment at about $1.3 billion, so buying up American properties would require perhaps $300 million in South African savings that might otherwise start new enterprises. If trade with the U.S. and other Western nations were cut off, the economy would further contract, and it would be just that much harder to find work for two million to three million unemployed, and increasingly rebellious, blacks.

The Afrikaaner right wing that controls the government believes the country could survive in economic solitary confinement. South Africa is stubbornly self-reliant. It feeds itself without great effort and for years has been crushing coal from its vast reserves to make gasoline and other liquid fuels. The limited embargoes that the U.S. and other nations have already imposed do not seem to have much impact. In 1978, for example, the U.S., along with most of the rest of the world, banned arms sales to that country. The South Africans promptly expanded their own arms industry; they are now major exporters of missiles, artillery, and machine guns.

No one can be sure, of course, how a withdrawal of American investment and a ban on trade might change South Africa—and whether the net of those changes would be good or bad. Withdrawal probably would not be for the better, though, whatever else happens in the country. The principal victims of economic isolation would likely not be the South Africans but their black neighbors to the north in Botswana, Zimbabwe, and other nations of the sub-Sahara that rely on South Africa's railroads and ports to trade with the rest of the world. After a few years the South African economy might rebound as customers for its diamonds and other precious metals figured out ways around the barriers.

If, on the other hand, the economy continued to sink, increasingly desperate blacks might become more revolutionary. Even though blacks outnumber whites by about 4 to 1, the whites could field half a million well-armed troops on short notice. The blacks have neither a significant supply of weapons nor the prospect of getting any soon. They could mount guerrilla attacks, making life uncomfortable if not untenable for whites. Fanatics on both sides might welcome such a situation, but it is surely not what most reformers in the U.S. have in mind.

If American companies stay on, they at least have some chance of helping to change a loathsome system in a less violent way. "U.S. business has been one of the biggest single influences in sabotaging apartheid," says John H. Chettle, a white South African and a director of the South Africa Foundation, a pro-integration organization sponsored by the business community.

Most major U.S. corporations abide by the Sullivan Principles, which require them to integrate the cafeteria and washroom as well as the office and the factory floor, to pay black workers as much as whites, and to promote blacks into managerial jobs. The supervisors who emerge from among the 47,000 black workers employed by U.S. companies could help form a cadre of black managers for an integrated South Africa.

AS LONG AS U.S. companies remain in South Africa they can offer their black workers at least some protection from the government—and from conspicuously racist employers. Says an official of Goodyear Tire & Rubber Co., which has over 1,000 black workers, "Once we leave we have no voice at all. Our employees want us to stay." So far, at least, the relatively few American executives and technicians in the country have not been threatened by either the government or militant blacks.

The integrated workplaces of U.S. companies in South Africa also keep an ideal alive and tangible for progressive South African

RESEARCH ASSOCIATE *Arieh Coll*

businessmen. Lou H. Wilking, GM's managing director in South Africa from 1977 until last summer, advised the labor minister that he was going to consolidate the company's four separate sets of facilities—cafeterias, locker rooms, toilets—for blacks, coloreds, white hourly wage earners, and white staff members. Technically what he wanted to do was illegal, but the minister said he would look the other way. Afterward, Wilking recalls, a parade of local businessmen came by to find out how he did it.

Since September about 100 American companies have tried to increase their say in racial and political matters through the U.S. Corporate Council on South Africa. Members of the council have met with government officials, including State President P. W. Botha, and told them why apartheid is bad for free enterprise and has to go. So far their advice has had no noticeable effect. One American manager who has spent ten years in South Africa urges patience. Says he: "I think we'll see a continuous cycle of repression, violence, and reform. The way we'll know whether any progress is being made in the midst of all that is whether we see blacks gradually being brought into government, into bodies like regional councils."

The trouble is, this kind of gradualism is not acceptable to an increasing number of blacks. Thus, if peaceful reform is to work, it must be substantial and it must come soon. Otherwise U.S. companies may find their position unsupportable, and the case for withdrawal compelling.

Even under the best of circumstances, it may be a long time before South Africa is good for U.S. business. Some companies do thrive in niches there. Monsanto, for example, says it made a tidy profit on its Roundup herbicide there in 1985. But many large manufacturers have been losing money for several years. Devaluation has driven the rand down to 30% of what it was worth in 1981, which means factories have to pay over three times as much to import raw materials and parts. Now there is a new cost: The city governments of New York, Washington, San Francisco, and more than a dozen smaller communities have laid down policies against buying items like cars and computers from companies that have investments in South Africa.

EMPLOYEES OF U.S. COMPANIES IN SOUTH AFRICA

Blacks	**47,000**
Asians/Coloreds	**14,000**
Whites	**35,000**
TOTAL	**96,000**

SOURCE: INVESTOR RESPONSIBILITY RESEARCH CENTER

Those Who Can't Leave

While the ranks of U.S. companies in South Africa have thinned, the number of blacks they employ has held steady for the past five years.

Still, there are at least two sound business reasons for sticking it out. First, a company risks creating a dangerous precedent if it gives the impression that it is leaving South Africa primarily to serve the pleasure of a city council or a university that threatens to shake the company's stock out of its portfolio. A corporation that can be chased from South Africa, the argument goes, might also be run out of South Korea or any other place that aldermen and junior professors (or students) find disagreeable.

One of the largest *U.S. employers in South Africa, Mobil hopes to fuel future growth there.*

PETER MAGUBANE—GAMMA-LIAISON

Further, South Africa has been profitable for U.S. corporations in the past, so companies like GM and Goodyear Tire, which have been in the country for 60 or 70 years, take the long view that someday they will make important money there again. The country is, after all, the wealthiest on the continent, with ten times as many telephones and cars per capita as other major African countries.

Pulling out now with the hope of coming back in a decade or so to cash in on better times is impractical. It would be foolish to expect that whoever is running South Africa in ten years—black or white or some combination—will make a special place for a returnee. It seems much wiser to stay on and cultivate a variety of black leaders, particularly trade unionists and leaders in communities where the company operates. At the very least, such ties might help keep looters out of the inventory.

The behavior of other African states suggests that companies will not be punished in the future for having remained under the apartheid regime. "African revolutionaries tend to be very conservative once they are in power," says Richard W. Hull, a New York University professor and consultant to businessmen on Africa. "Look at Angola. Gulf Oil was sustaining the Portuguese colonial government. Now the Marxists are in power and Gulf is still there."

OVER THE LONG PULL, getting out will likely please only competitors eager to pick up the pieces. Japanese companies are forbidden by their nation's laws from owning businesses in South Africa. But through middlemen they already command half of South Africa's market of 300,000 or so new-car sales a year. By comparison, GM stays in business with only a 10% share of the market; Ford owns 42% of Samcor, which has a slice of about 20%. One of IBM's global rivals, Hitachi, does not make computers in South Africa or export directly to the country, but it does sell $50 million worth a year indirectly by way of a European distributor. Through its agents Hitachi would presumably move in further if IBM were to move out.

In the sweep of history there comes a time when emotions and ethics overpower even the strongest economic arguments. That time may come in South Africa, but it has not come yet. For rational and moral reasons, the decision of U.S. businessmen to remain there is difficult. But for the moment at least, it is better to stay than to go. ■

COMPETITION

IT'S 4TH & 10— THE NFL NEEDS THE LONG BOMB

The richest league in pro sports is beset by antitrust trials and other tribulations: TV trouble, monster salary demands, players on drugs. Commissioner Pete Rozelle is still smiling, but the league's happiest days are past.

■ *by Thomas Moore*

JEFF MERMELSTEIN

THE SCENE was a nondescript function room of the Hyatt Regency Hotel in Cambridge, Massachusetts. At 9 A.M. on a bleak February day in 1984, 65 executives of the National Football League met for an annual labor relations seminar organized for the league by professors of the Harvard Business School. Two previous seminars had focused on negotiating skills to help clubs bargain with players. A testy players' union charged that the get-togethers inevitably led to collusion on salaries. This year's seminar would be a little different, and cause a lot more trouble.

At the suggestion of Michael McCaskey, the young new president of the Chicago Bears and grandson of league founding father George Halas, a key speaker at the seminar was Michael Porter, a Harvard B-school star known for his provocative ideas on how to analyze and combat competitors' strategies. McCaskey, himself a former Harvard Business School professor, hoped Porter would "stretch the league's intellectual framework" for thinking about its mounting business problems. Chief among them was rapidly escalating player salaries, aggravated in the last couple of years by the formation of a competing league. The United States Football League played in the spring, largely to avoid

Beleaguered Commissioner *Pete Rozelle faces a raft of troubles.*

head-on competition with the 66-year-old NFL, and was having trouble establishing itself. But since it started to bid up salaries for star players, the annual growth of NFL player costs—over half of each team's operating budget—had jumped from a worrisome 15% to an alarming 25%.

When league officials had seen the seminar's proposed agenda, they had requested that Porter's talk and the issue of the USFL be given greater prominence. One had noted in the margin: "More time for Porter—get specific—case of NFL v. USFL." Porter more than obliged.

Dimming the lights and projecting a page-by-page outline on a screen, Porter declared the NFL was in guerrilla warfare with the USFL. He flashed up a quotation from an ancient Chinese warlord: "To conquer the enemy without resorting to war is the most desirable. The highest form of generalship is to conquer the enemy by strategy."

Then Porter spent 2½ hours analyzing the capabilities, strategies, and weaknesses of the USFL and proposing ideas and strategies with which the NFL might vanquish its enemy. They included: Try to "dissuade" ABC from continuing the USFL's TV contract (one way would be to give ABC's *Monday Night Football* a weak schedule filled with NFL teams badly hurt by USFL player raids); sign the best USFL players to future contracts or determine if current contracts can be broken (Herschel Walker, superstar running back of the USFL's New Jersey Generals, could be a target); encourage problem players and overvalued players in the NFL to jump leagues, depleting scarce USFL resources (Porter cited Fidel Castro's ploy of unloading mental cases and hardened criminals on the U.S.); attempt to co-opt the most powerful and influential owners with promises of NFL franchises; try to bankrupt the weakest teams to reduce USFL size and credibility. League executives liked what they heard. McCaskey was so enthused he asked Porter to give the talk to a larger owners' meeting.

But NFL Commissioner Pete Rozelle, who wasn't at the seminar, says that when he heard what had been discussed he fell physically ill. What he feared soon came to pass: The USFL filed a $1.6-billion antitrust suit against the NFL, citing the Porter presentation as one of three "smoking guns." Porter's ideas were legitimate strategies for a company in a normal competitive market. But if several companies in the same business—particularly companies that dominate a market the way the 28 NFL clubs dominate pro football—combine to destroy competitors, they violate the Sherman Antitrust Act.

RESEARCH ASSOCIATE *Susan Caminiti*

The suit, soon to be decided by a jury of one man and five women in federal court in Manhattan, comes at a dicey time for the NFL. A guilty verdict threatens catastrophic damage. Even if the NFL wins, the cost will have been several million dollars in legal fees—and a time-consuming distraction from a raft of other serious problems.

AFTER 25 YEARS of geometrically rising fortunes, owners and players are learning, some to their astonishment, that the league is vulnerable to the normal play of economic forces. Last year the teams together did pretty well: They earned perhaps $70 million on $780 million in revenues. In comparison, pro basketball doesn't earn nearly as much, hockey is scraping by, and half of major league baseball teams are breaking even or losing money. But the NFL's television revenues could drop next year, making the league unprofitable. Even though football players on average earn less than baseball and basketball players, their rising salaries are eroding profits. The scandal of drug use by players has given the game a seamy dimension; when Rozelle recently announced a drug-testing program, opposition from the players' union forced him to submit to arbitration. The triumph of Los Angeles Raiders owner Al Davis in an antitrust suit has weakened the league's authority. Team owners are bickering over how to attack these problems, and their dissension is one more threat to the league. The NFL might climb out of this ditch, but the joy ride of the most successful league in the history of pro sports has ended.

The NFL's worst problem, remarkably, is television, which was the main factor in the league's spectacular rise.

continued

ADAM STOLTMAN—DUOMO

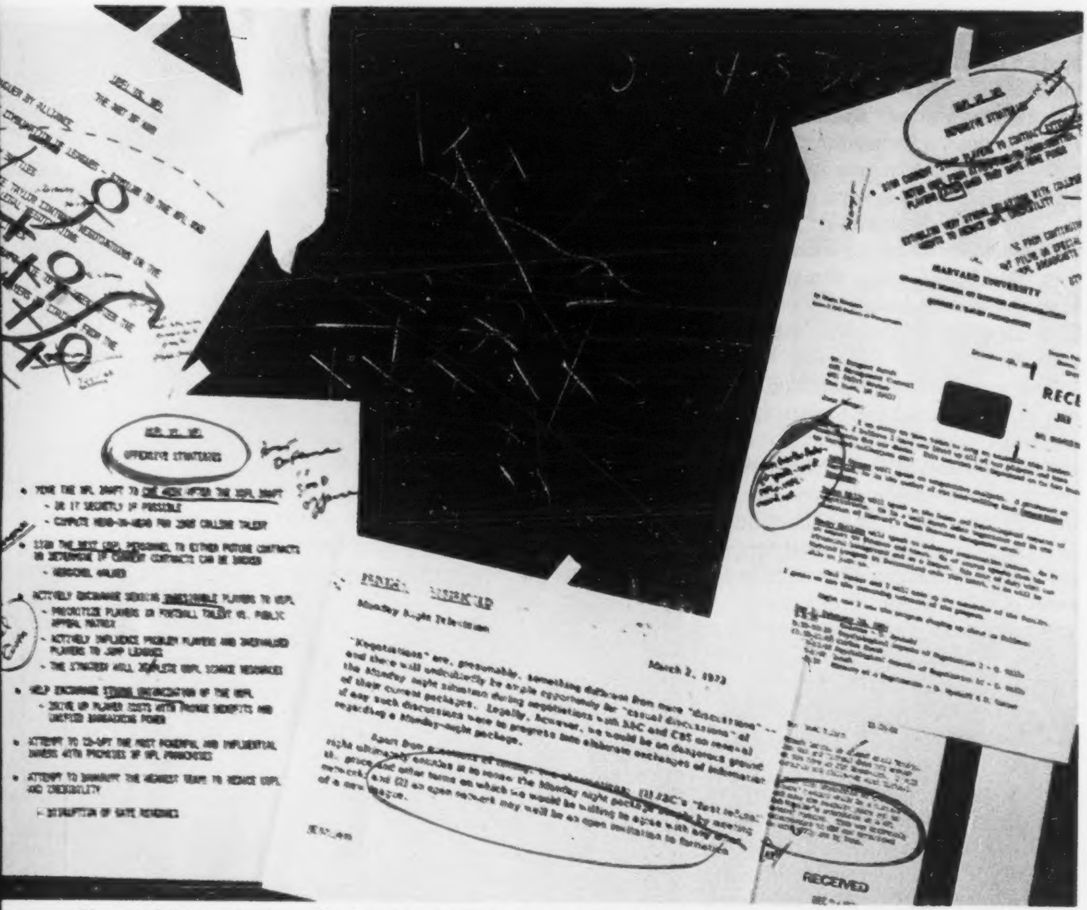
Hard-pressed networks: *NBC (covering play at Giants Stadium), CBS, and ABC want to cut what they pay the NFL.*

ANDY FREEBERG

A frightening lawsuit: *Some NFL owners worry that USFL attorney Harvey Myerson has built an antitrust case they can't beat.*

RONALD MODRA—SPORTS ILLUSTRATED

Drug scandals: *New England Patriot Tony Collins is among a growing number of NFL players alleged to be drug users.*



Key evidence *in the USFL's antitrust case against the NFL are these documents. The USFL claims they show how the NFL tried to destroy the fledgling league and in the process violated the Sherman Act. The NFL says the USFL has practically destroyed itself.*

Until lately, NFL football games have been among the networks' most lucrative fare. The networks have shelled out for them accordingly. Under the current five-year contract, signed in 1982, they pay the league $2.1 billion, which is divided evenly: $15 million annually per team, providing just over half the average team's revenue.

But when Rozelle renegotiates the contract next spring, he will think he has run into the Refrigerator. Last year the networks, plagued by soft advertising sales and a glut of sports programming, lost about $60 million on NFL football, according to Neal Pilson, an executive vice president of the CBS Broadcast Group. Pilson says CBS lost $22 million and estimates the other two networks each lost something similar. The networks may do even worse this year. Roone Arledge, head of ABC News and formerly head of Sports, testified that ABC could lose about $30 million. The NFL disputes these figures. Says Rozelle: "I have strong information they were closer to breakeven." That would still leave him a long way from a strong bargaining position.

Network executives admit they miscalculated the demand for advertising in NFL football broadcasts when they signed the contract after the 1981 season. That year produced the best ratings and ad sales in NFL history. The networks have no intention of making a similar mistake this time.

Much will depend on how the NFL performs on TV this fall. Despite a rebound in ratings last season, preliminary ad sales for the coming season are not encouraging. According to J. Larre Barrett, head of ABC Sports' ad sales, Chrysler has agreed to buy 30-second spots on *Monday Night Football* for $190,000 each, $15,000 more than last year. But Chevrolet, one of the NFL's biggest advertisers, pulled out. "It will be difficult for us to recover those dollars," says Barett. At best, he hopes to reduce ABC's losses on *Monday Night Football* this year.

Unless ad sales bounce back miraculously, the networks will want to cut annual payments to the league by at least the $60 million Pilson estimates they lost last year. "We're not anxious just to break even on an investment as huge as the NFL," Pilson says. "The amount at stake is substantially higher than $60 million a year."

Such a hit would "be a shocker," admits Arthur Modell, owner of the Cleveland Browns and head of the league's TV committee. It would be worse than that according to Lamar Hunt, owner of the Kansas City Chiefs and a connoisseur of big financial trouble: "It would throw every team into the red." According to Michael S. Megna, a leading appraiser of sports franchises at American Appraisal Associates Inc. in Milwaukee, a 10% decline in TV revenues would also bring down the average value of NFL franchises by 10%. (For the worth of franchises in football and three other pro sports, see box.)

The TV problem cascades into another one: A drop in TV revenues will force owners to hold the line on what they pay players, and maybe even ask for money back. That in turn could spark a players' strike next year when the current union contract comes up for renegotiation. The last players' strike, in 1982, lasted eight weeks and cost each team about $3 million. Last year the average player's salary was $193,000—more than double what it was in 1981. Says the Bears' McCaskey, "The conclusion is inescapable: If TV revenues go down, player salaries would have to go down too."

League owners are already clamping down on salary expenses. Last year they cut team rosters from 49 to 45 players, and some owners began to take a hard line on contract renewals. McCaskey of the Bears refused what he considered unreasonable salary demands by two star defensive backs, Todd Bell and Al Harris, who held out for the entire season. The Bears won the Super Bowl without them, bolstering McCaskey's position. "What is clear," he says, "is how we will respond to any agent who tries to blackmail us." This year McCaskey is holding the lid on defensive end Richard Dent, the Bears' top quarterback sacker and most valuable player in the Super Bowl.

PHOTOGRAPH BY VICTOR SCHRAGER

So far this summer, owners have signed fewer college draft choices than in previous years, indicating they are getting tougher in contract negotiations. But accustomed to breathtaking revenue growth, they have little taste for budgetary discipline. McCaskey was amazed by the league's primitive management practices. "None of the teams did three-year financial projections," he says incredulously. When the league started requiring them, many owners sent in plans premised on making the play-offs. "I told them not to do that anymore," says NFL treasurer John Schoemer. "We can't have 19 teams making the play-offs."

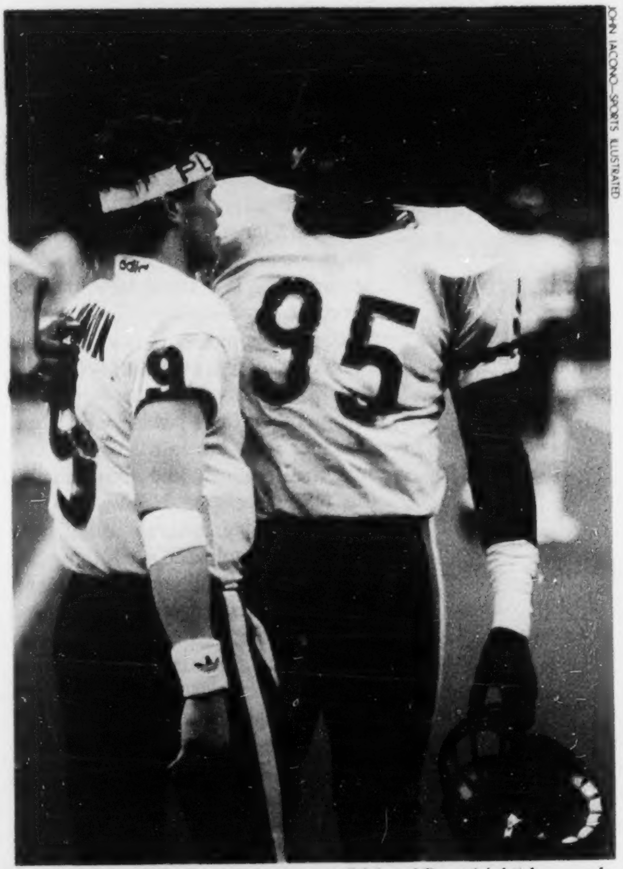
OWNERS HAVE a greater appetite for developing new sources of revenue that they don't have to share with other teams. Under the NFL's pooled TV contracts, all teams share revenues equally. They also split ticket sales 60-40 between the home and visiting clubs. But teams do not have to share income from luxury "skyboxes," which are considered real estate investments. In the past ten years, NFL owners have invested a lot of money in building these big-windowed rooms near the tops of stadiums that wealthy fans and corporations lease for $30,000 to $80,000 a year.

The Minnesota Vikings and Los Angeles Rams generate some $2 million a year from skyboxes. The Denver Broncos are building boxes that will bring in up to $3.5 million a year; the San Francisco 49ers, $5 million. And the Miami Dolphins, in what McCaskey of the Bears calls a breakthrough concept, will finance the construction of a $90-million stadium entirely on revenue from leasing skyboxes and selling some 10,000 season tickets for premium seats at $600 to $1,400 apiece. Altogether, the Dolphins will probably gross $18 million a year from preferred seats—more than half the average NFL team's revenues today. Dolphin owner Joseph Robbie says he expects to pay off his new stadium's mortgage in 12 years.

While skybox money will be used initially to finance stadium construction and improvements, a lot will eventually find its way to the clubs' bottom lines. But small-market teams in places like Green Bay and Cincinnati have trouble selling many expensive preferred seats, so they are starting to militate for sharing this revenue too. League meetings have heated up on the subject, and a confidential study by Arthur D. Little on how to deal with the problem sits on a shelf.

Skybox revenues aggravate a troublesome disparity between rich and poor teams similar to one that plagues major league baseball. Baseball teams do not share local TV revenues, which for teams in big cities are much greater than the network take. As a result, teams in such markets as Los Angeles and New York make millions more than teams in small TV markets, such as Seattle and Cincinnati. The big TV market teams can thus invest more in acquiring good players. The better players can bring the teams better records, which in turn create more interest and money for the team, widening the gap between haves and have-nots.

Until recently pro football's revenue-sharing arrangements have given small-market teams roughly the same resources as big-market teams. But skyboxes, plus favorable stadium deals between certain cities and teams and a widening range in top ticket prices, will increase the revenue gap between


JOHN IACONO—SPORTS ILLUSTRATED

A reluctant Bear *for the moment, Richard Dent (right) has made salary demands that the club, determined to control costs, won't meet.*

GRAHAM FINLAYSON

Top Bear *is club president Michael McCaskey, among the NFL owners most aggressively trying to clamp down on player salaries. Above, he promotes an exhibition match between the Bears and Cowboys in London.*

In signing TV contracts with all three networks, the NFL appears to have overreached itself, inviting antitrust scrutiny.

the rich and poor. According to Schoemer, the gap could jump from $7 million to $14 million in the next couple of years.

Another have vs. have-not issue disrupting the NFL stems from owners' different debt burdens. Many original NFL owners, such as the New York Giants' Wellington Mara and the Pittsburgh Steelers' Art Rooney, have little or no debt. But some new owners have borrowed heavily. They need to make enough money to pay operating costs and service debt. Consequently, they are not about to share any new revenue they can squeeze out of their franchises.

Such concerns could seem small if the NFL loses the USFL's lawsuit. Since mid-May owners from both leagues have muscled each other for room in a small gallery crowded with amused sports reporters, secretive lawyers, and baffled courthouse idlers. The case has featured a succession of luminaries from sports, television, and politics, ranging from the smooth and often vague Rozelle to the bombastic but hilarious Howard Cosell. After NFL attorney Frank Rothman had objected that several of Cosell's football stories were irrelevant, much as "Dandy" Don Meredith used to on *Monday Night Football*, Cosell told another, adding, "That is irrelevant, Mr. Rothman, but it is colorful."

As the trial neared its end, both leagues officially expressed confidence in winning. But even NFL owners were shaken by the strong case built by the USFL's chief counsel, Harvey Myerson (cited by FORTUNE as one of five "Lawyers for Companies in Deep Trouble," October 14, 1985). When it was time for the NFL to present its side, league attorneys decided not to fill the 20 court days allotted. Halfway through their presentation, Atlanta Falcons owner Rankin Smith Sr. was clearly feeling miserable. Embroiled in salary negotions with players, he told the Atlanta *Constitution*, "We can't keep paying people like we have, especially with the $1.6-billion suit that we're losing. I don't like what I see. I'm worried. And if we do lose, it will be chaotic." Although jury trials are practically impossible to call, some NFL owners feared they could get hit with a monster verdict, such as Pennzoil's $10.5-billion courtroom triumph over Texaco.

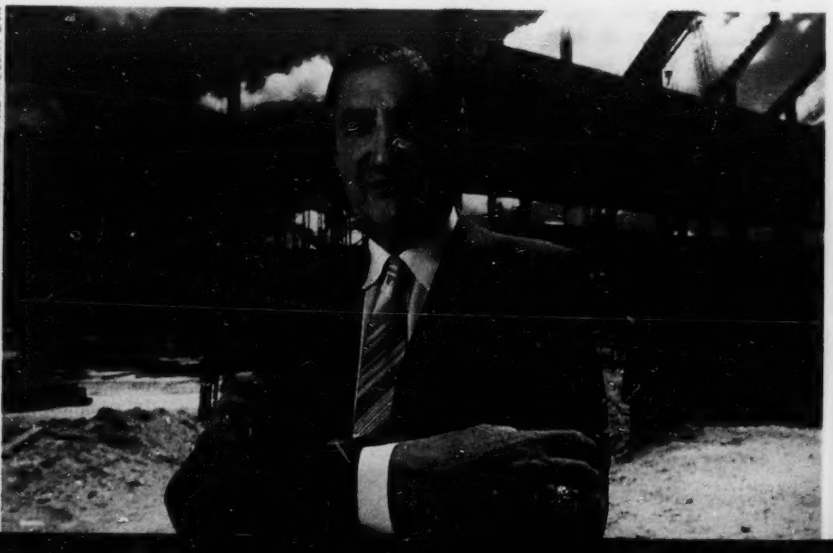
FOR THE USFL the outcome is a matter of survival. Its original game plan to play football in the spring never caught on with fans in the stands or on the tube, and the networks would have no part of its new plan to play head to head against the NFL this fall. That left it in an untenable financial position. The refusal by the networks and the reasons for it are at the heart of the USFL's case. In signing TV contracts with all three networks, the NFL appears to have overreached itself, inviting antitrust scrutiny. By tying up all three networks, the NFL made it difficult for any other league to get a foot in the door. As long ago as 1973, NFL inhouse counsel Jay Moyer had written an internal memo—another "smoking gun," according to the USFL—that warned of the dangers of bargaining too hard with ABC. "An open network may well be an open invitation to formation of a new league," he wrote.

NFL lawyers argue that the USFL destroyed itself by poor management, paying players more than it could afford and switching to a fall season. But even if they are right, that may not be enough to get the NFL off the hook. Network executives who testified, including Roone Arledge of ABC and Pilson of CBS, deny that the NFL pressured them to turn down a deal with the USFL in the fall. Such pressure would have been unnecessary, they said. Signing up the USFL, even if its ratings had been better than they were, simply did not make economic sense while the networks were also broadcasting NFL and college football games and losing money on them. A CBS study showed that televising the USFL would have pulled viewers from the network's other football offerings and led to a net loss.

But if one network had not been televising NFL games, it would not have worried about audience dilution. Like ABC in 1960, which did not carry NFL football and decided to take a chance on the American Football League, an open network would have considered the USFL's sales pitch on its own merits. In short, whatever the *intent* of the NFL's deals with the three networks, the economic *effect* was to make it difficult for a competing league to get its day on TV in the fall.

The palace guard: *Dallas Cowboy President Tex Schramm, a Rozelle loyalist, tells reporters the USFL's case is preposterous.*

The doubter: *Miami Dolphin owner Joseph Robbie, in front of his rising stadium, thinks the NFL could have done more to avoid antitrust suits.*



JOSE A. FERNANDEZ—WOODFIN CAMP
ANDY FREEBERG

Says a USFL insider: "All we gotta do is show intent *or* effect and we win." Indeed, that is how the courts have interpreted the Sherman Act.

The NFL claims the USFL's real game plan, engineered by New York real estate mogul Donald Trump, who owns the USFL's New Jersey Generals, was to force the NFL to take in four to six USFL teams. A merger of six more teams would dilute each of the present NFL teams' current TV revenues by about 20%, a devastating prospect for the owners. Trump would not object to a merger so long as it included his team. But he claims his motives as a USFL owner were simply to resolve the league's terminal illness. "I told the other owners that our only chance was to move to the fall and get a network contract," he says. "If we couldn't get a TV contract immediately, then we would bring an antitrust suit against the NFL. The beauty is, we will either have a very strong, viable league because of the treble damages award, or at least we will know not to waste any more time."

The NFL is already the loser in another big antitrust suit, which has weakened the league's authority over individual teams and cracked its facade of unity. The antagonist was Al Davis, a team owner who defied the league by moving his Raiders from Oakland to Los Angeles in 1982. The Raiders had sold out for 12 consecutive seasons in Oakland and won two Super Bowls. But Davis felt that the best way to ensure the Raiders' financial future and competitive position was to move to one of the biggest metropolitan markets.

The league tried to stop him, and Davis took it to court, arguing that the NFL's rule allowing franchise moves only by a three-fourths vote of the owners was an unreasonable restraint of trade. His suit touched a problem that has dogged the NFL and other pro sports leagues for years. The NFL is a nonprofit unincorporated association of 28 separate businesses, each of which owns and operates a team. The league has bylaws that establish the rules of play on the field and off the field among owners. By definition, such an association constitutes a cartel among competitors that in the business world would generally be regarded as illegal under antitrust laws.

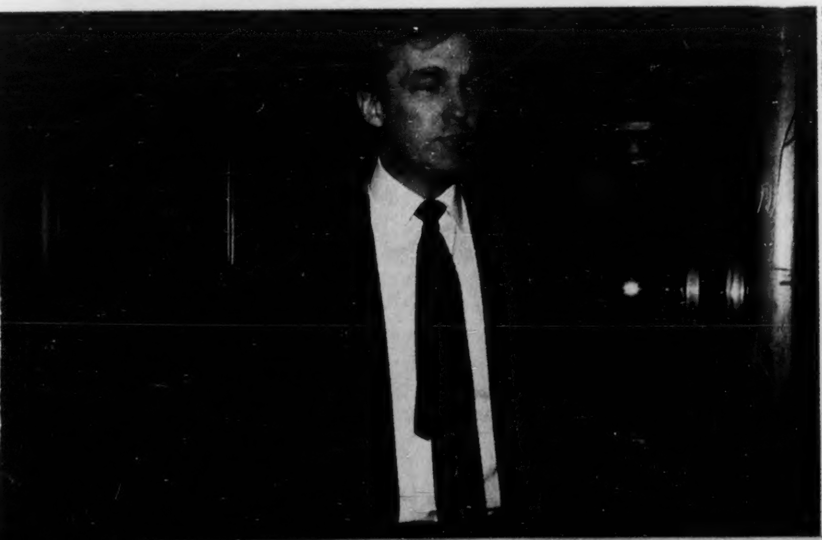
ROZELLE and most NFL owners contend that sports leagues are special animals, that their rules governing team business are really just extensions of the rules of the game. Unlike agreements among economic cartels, whose purpose is to discourage competition, league rules are intended to increase competition, making the game more appealing, they say. "Our monopolistic practices are designed to control ourselves," says Tex Schramm, president of the Dallas Cowboys and a close friend of Rozelle's. Paul Tagliabue, the NFL's longtime outside counsel from the Washington firm of Covington & Burling, likens the league's owners to a company's board of directors. "Any normal business can decide where it wants a plant," he says, "but we're treated like a group of conspirators rather than a meeting of the board."

The courts have disagreed with this view repeatedly, ruling that pro football is just another business and that each team is a separate entity. In 1982 a Los Angeles jury decided in Davis's favor. Recently a three-member federal court panel, which had previously upheld the verdict, asked that the damage award of some $11 million be reviewed. Trebled as required by law, and with interest and legal fees added in, the amount currently stands at about $65 million—or $2.3 million to be paid by each of the 27 other NFL teams. The panel said that the award must be lowered by the excess in value of a Los Angeles expansion franchise over an Oakland expansion franchise. At the same time, however, the panel that sent Davis's award back for review ordered the NFL to pay $15 million in damages to the Los Angeles Memorial Coliseum.

The NFL can afford the damages more easily than it can the effect of the decision, which invalidated league bylaws governing franchise moves. In the wake of the 1982 verdict, Robert Irsay, owner of the Baltimore Colts, moved his team to Indianapolis in the middle of the night. Other owners who have run into financial problems are also shopping their teams around to greener cities.

These moves have caused howls of outrage among jilted fans, city officials, and Congressmen. Rozelle, once accused of wielding czar-like power,

Says Tex Schramm of the Cowboys: "Davis always had this personal vendetta against Pete, but it's never been so overt as it has lately. He's trying to get Pete out."



The shaker: *Real estate developer Donald Trump, who owns the USFL's New Jersey Generals, pushed his fellow owners to take on the NFL.*

The maverick: *Raiders owner Al Davis won his suit against the NFL and aided the USFL's suit. His lawyer is Joseph Alioto, right.*

ANDY FREEBERG
JEFF MERMELSTEIN

The former philosopher-king *of ABC's* Monday Night Football, *Howard Cosell, found another pulpit on the witness stand to spin out tales of derring-do against the sports establishment, most notably his former network boss Roone Arledge and his former friend Rozelle.*

EFF MERMELSTEIN

claims there is nothing he can do in light of the Davis decision. Many owners agree. "We are asking Congress to tell us what to do," says Lamar Hunt. "The league can't continue spending all its time in court."

Congress has given the NFL limited exemptions from antitrust laws so it could pool TV contracts and merge with the AFL. Now it wants another exemption that would allow it to control franchise moves. Ideally the league would prefer a blanket exemption like the one major league baseball has enjoyed since 1922, when Supreme Court Justice Oliver Wendell Holmes proclaimed the game a national pastime, not commerce governed by the antitrust laws. Congress has been reluctant to give the NFL any more exemptions and instead is considering a bill proposed by Senator Arlen Specter of Pennsylvania that would tell the league how to govern franchise moves. Instead of a three-fourths vote by owners, only a simple majority would be required, plus some proof that an owner could not operate his team profitably in its current market over several years.

Davis's lawsuit and testimony in the USFL suit, revealing what Rozelle and other owners said at closed-door meetings about the USFL, have shaken the league to its core. Some NFL executives believe Davis is motivated only by revenge. The former commissioner of the American Football League, Davis thought he should have gotten credit for the AFL's merger with the old NFL in 1966, associates say. He was stung when Rozelle, a former public relations man whom Davis regarded as less qualified for the job, beat him out to be commissioner of the combined league. Says Schramm of the Cowboys, who negotiated the merger with AFL founder Lamar Hunt: "Davis always had this personal vendetta against Pete, but it's never been so overt as it has lately. He's trying to get Pete out." Davis dismisses this by saying that the NFL has been painting a vengeful picture of him for years.

Whatever Davis's motives, his actions have fouled the league's once smooth operations. "Every one of our board meetings can now be turned around by one member because he might sue," says NFL counsel Tagliabue. "Here everything becomes a potential treble damages case. No other business faces that level of threat and exposure." By extension Rozelle's power has been undercut as well. He has always courted the powers that be in the league, starting with the original NFL club owners, who remain a virtual palace guard, though their powers are slipping. "There was a time," says an owner, "when four or five guys would carry Rozelle's opinion into a room, and it would pass." Now Rozelle does a lot more listening.

Another ramification: If Davis can move his club unilaterally, then why can't he make his own TV deal? Some owners think he might try, particularly if Rozelle comes back with less money from the networks next year. Schramm says, "The biggest thing about the Davis decision is that it opens up the whole question of TV revenues."

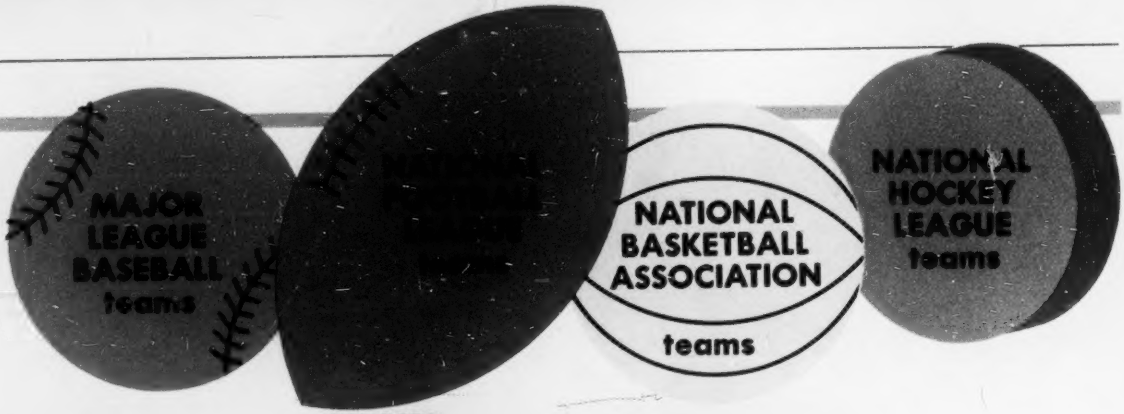
Robbie of the Dolphins, like some other new owners, thinks the league should try to stay out of court and settle its own problems, as many owners do in their other businesses. "The solution to our problems lies within ourselves," he says. He distrusts the big-fix approach of the old guard, whether it is trying for another huge TV contract or a congressional antitrust exemption.

He says he was one of the few owners who were not thrilled with the current TV contract, which worked out to $259 million a year more than the contract it replaced. He disagreed with an unwritten concession the league made to the networks under which the top teams in any year automatically play each other more often the next year. He thought that penalized winning teams unfairly. He also thought that the additional revenue the networks put up because of the scheduling arrangement would only go to the players, who were basing their contract demands on whatever the NFL got from TV. "That TV contract should have set us up for a long time on a financial basis, but we gave all the benefits away in our negotiations with the players," he says. "We would have been better off if we had kept the old TV contract at the same money."

When it comes to antitrust, the NFL is at least guilty of being too cavalier. It has lost six major antitrust suits brought against it, yet it has refused to take defensive measures to protect itself. When Davis decided to move to Los Angeles, the NFL could have written rules governing franchise moves that would have passed antitrust muster as reasonable. The NFL could also have sold its games to only two networks and sold a third package to pay-TV, syndication, or one of the budding "fourth networks"—a move it is considering belatedly today if one of the networks doesn't cough up enough money next year. So long as one network remains open, a would-be competitor cannot blame its problems on an NFL television monopoly.

THE DEEPER CAUSE of the NFL's troubles, as a few owners privately acknowledge, is hubris. The old guard has hung on to its tight control at all costs. Despite the NFL's status as a quasi-public organization blessed by Congress, the owners ran the league like an exclusive game preserve. They admitted new members rarely, and usually only after much groveling and the payment of high entrance fees. They squeezed the networks, paid players what they liked, and swiftly disciplined any renegades—and oh, yes, made a pile doing it. Those days are over. The TV ratings and stadium attendance figures say America still loves the NFL, but not as much as it once did. The courts say the league still has power, but not as much as it thought. On this new playing field, making money may never be as easy as it was. ■

What Teams Are Worth, Sport by Sport


MAJOR LEAGUE BASEBALL teams
NATIONAL BASKETBALL ASSOCIATION teams
NATIONAL HOCKEY LEAGUE teams

VALUE in millions	TEAMS
[illegible]	LOS ANGELES DODGERS NEW YORK YANKEES
[illegible]	NEW YORK GIANTS NEW YORK JETS LOS ANGELES RAMS LOS ANGELES RAIDERS CHICAGO BEARS SAN FRANCISCO 49ERS DALLAS COWBOYS
[illegible]	MIAMI DOLPHINS
[illegible]	WASHINGTON REDSKINS PHILADELPHIA EAGLES [illegible] [illegible] [illegible]
[illegible]	[illegible] TAMPA BAY BUCCANEERS NEW ENGLAND PATRIOTS [illegible] [illegible]
$5[illegible]	GREEN BAY PACKERS MINNESOTA VIKINGS CALIFORNIA ANGELS BOSTON RED SOX DETROIT TIGERS NEW YORK METS
$51-[illegible]	ST. LOUIS CARDINALS KANSAS CITY CHIEFS SEATTLE SEA HAWKS CINCINNATI BENGALS SAN DIEGO CHARGERS NEW ORLEANS SAINTS INDIANAPOLIS COLTS BUFFALO BILLS PHILADELPHIA PHILLIES
$41-$50	BOSTON CELTICS
$36-$40	LOS ANGELES LAKERS NEW YORK KNICKS PHILADELPHIA 76ERS KANSAS CITY ROYALS BALTIMORE ORIOLES CHICAGO CUBS CHICAGO WHITE SOX TORONTO BLUE JAYS ST. LOUIS CARDINALS ATLANTA BRAVES MONTREAL EXPOS
$31-$35	CINCINNATI REDS SAN DIEGO PADRES MINNESOTA TWINS MONTREAL CANADIENS EDMONTON OILERS TORONTO MAPLE LEAFS CALGARY FLAMES HOUSTON ROCKETS CHICAGO BULLS DALLAS MAVERICKS NEW JERSEY NETS
$26-$30	MILWAUKEE BREWERS HOUSTON ASTROS OAKLAND A'S PITTSBURGH PIRATES SAN FRANCISCO GIANTS TEXAS RANGERS CLEVELAND INDIANS SEATTLE MARINERS QUEBEC NORDIQUES NEW YORK RANGERS
$21-$25	DETROIT PISTONS WASHINGTON BULLETS ATLANTA HAWKS MILWAUKEE BUCKS PHOENIX SUNS
$16-$20	DENVER NUGGETS SEATTLE SUPERSONICS UTAH JAZZ SAN ANTONIO SPURS INDIANA PACERS PORTLAND TRAIL BLAZERS GOLDEN STATE WARRIORS CLEVELAND CAVALIERS SACRAMENTO KINGS LOS ANGELES CLIPPERS DETROIT RED WINGS PHILADELPHIA FLYERS VANCOUVER CANUCKS CHICAGO BLACK HAWKS NEW YORK ISLANDERS
$10-$15	BOSTON BRUINS ST. LOUIS BLUES WINNIPEG JETS WASHINGTON CAPITALS HARTFORD WHALERS MINNESOTA NORTH STARS BUFFALO SABRES LOS ANGELES KINGS NEW JERSEY DEVILS PITTSBURGH PENGUINS

■ In the business of sports, it isn't whether you win or lose but where you play the game—and what game you play.

FORTUNE's rankings of team values are based on estimates by knowledgeable industry sources. The figures reflect the size of the team's home market, management's success in exploiting the market, competition from any other team in the same sport, and least important, the team's win-loss record. The value of stadium deals and real estate is not included. Baseball and football lead the leagues in value; hockey is in the cellar.

Within each price range the teams are ranked by value. Ranges are wide for the best teams because prospective buyers might throw economics aside in bidding for these legendary franchises. As an industry insider explains, "How do you put a value on the magic of the Boston Celtics, the Los Angeles Dodgers, or the Chicago Bears?" —T.M.

THE FORTUNE
INTERNATIONAL
500
SPECIAL REPORT

PHOTO BY ROBERTO BROSAN/CONSTRUCTION BY NICHOLAS FASCIANO

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THE WORLD'S LARGEST INDUSTRIAL CORPORATIONS

The year disappointed many among the top 50 companies: Their growth slowed and profits shrank. Oil and steel had another uninspiring round. Overseas automakers outstepped the American Big Three in net income gains. And look what happened to poor old ITT.

FOR THE WORLD'S biggest companies, 1985 ranked as barely so-so. Combined sales of the top 50 industrial corporations, measured in dollars, rose only 3% from the previous year, while net income dropped 12%. A sputtering U.S. economy, which grew less than half as fast in 1985 as it had in 1984, gets much of the blame for the lackluster performance of this group of giants. Economists generally look for somewhat better growth worldwide this year than last.

Twenty-one of the top 50 companies on FORTUNE's list—including eight of the ten biggest—are American. Most of the non-U.S. corporations depend heavily on sales to Americans. While the U.S. imported more goods last year than the year before, the growth rate slowed. A decline in oil imports by industrialized nations further damped world trade, with dire effects on some oil producers. A dramatic result can be seen in the slide of Kuwait Petroleum, No. 37 in 1984, to No. 48; its revenues declined 9%. Revenues of Nippon Oil also fell 9%, and those of Petróleos de Venezuela, 13%—enough to drive both companies from the top 50. On last year's list Nippon was No. 38 and Petróleos de Venezuela was No. 45.

For the oil titans that remained on the list, combined revenues were up less than 1%, while profits fell 9%. Had Texaco not posted an extraordinary 300% gain through its acquisition of Getty Oil, the oil group's combined earnings would have been off 12%. Among other American oil producers on the list, only Chevron reported significantly higher sales, and only Occidental boosted profits. Tenneco's earnings fell 73%.

Auto companies outside the U.S. fared better last year than the American Big Three. Overseas automakers averaged a 10% gain in sales. South Korean newcomer Hyundai, best known to Americans as the maker of the low-priced subcompact Excel, reported a 36.5% increase. Not introduced in the U.S. until this year—too late to affect 1985 figures—the Excel has been such a hit with American consumers that it has already broken the U.S. record for first-year sales of an imported car.

The Big Three's sales rose 9%. After an 18% increase in 1984, Ford's sales went up less than 1% last year. But General Motors reported a gain of 15%, reflecting in part the acquisition of two big companies—Hughes Aircraft and Electronic Data Systems, a computer services firm. GM squeezed out Exxon, which had a 5% sales decline, as the world's largest industrial corporation.

In profits, automakers outside the U.S. showed the way. They pushed up earnings 28%; Volkswagen's went up 163%, from a low 1984 base. Detroit's net income slid 17%. The Big Three were victims, in a way, of past accounting triumphs; their 1984 earnings were inflated by tax-loss carry-forwards that had been mostly used up by 1985.

This is the first time since FORTUNE started ranking the world's biggest industrial companies in 1974 that a Korean company has appeared among the top 50, and now there are two: Hyundai and Samsung, South Korea's largest maker of consumer electronics products. Both companies have been growing at a spectacular rate for several years. Since 1980 Hyundai's sales have increased 153%; Samsung's, 274%.

Last year Samsung got a boost as South Korea's currency gained less against the dollar than did the Japanese yen. That enabled the company to undersell Japanese competitors in the U.S. Low labor costs also helped Samsung grow. South Korea's exports of consumer electronics products to the U.S. shrank 3% last year, but Samsung and other Korean companies pushed up revenues by subcontracting with companies in Japan and elsewhere, where labor costs are higher than in South Korea.

The biggest jump in the rankings was Nestlé's, from No. 49 to No. 32. Behind that feat: a 35.6% increase in sales, largely produced by Nestlé's acquisition of Carnation Co., a U.S. food company. Another big jump was taken by Boeing, which flew onto the list on the wings of demand for 737 and 747 jetliners; its sales gained 32%.

Three companies on this year's list lost money, two more than last year. The loser then was ENI, the Italian state-owned oil company, which got back into the black through cost cutting and stepped-up marketing; 1985 net income was the highest in the company's 30-year history. The money losers this time around are in two troubled industries—oil and steel. IRI is Italy's state-owned steel company. Atlantic Richfield took extensive write-offs as it restructured in 1985. It sold most of its East Coast refining and marketing operations and unloaded many metal and mineral businesses. The other loser, VÖEST-Alpine, Austria's state-owned steel company, a newcomer to the top 50, got burned in unsuccessful spot-oil speculations (see page 180).

One departure from the list is worth taking special note of. In 1974 ITT ranked as the 11th-largest industrial corporation in the world. Last year it was No. 44. This year, after a sales decline of 10% in 1985, ITT disappears from the top 50.

—Alan Farnham and Carrie Gottlieb

50 [illegible] RANKED BY SALES

RANK '85	RANK '84	COMPANY	HEADQUARTERS	INDUSTRY	SALES $000	NET INCOME $000
1	3	**General Motors**	Detroit	Motor vehicles and parts	96,371,700	3,999,000
2	1	**Exxon**	New York	Petroleum refining	86,673,000	4,870,000
3	2	**Royal Dutch/Shell Group**	The Hague/London	Petroleum refining	81,743,514	3,928,208
4	4	**Mobil**	New York	Petroleum refining	55,960,000	1,040,000
5	6	**British Petroleum**	London	Petroleum refining	53,100,765	866,745
6	5	**Ford Motor**	Dearborn, Mich.	Motor vehicles and parts	52,774,400	2,515,400
7	8	**International Business Machines**	Armonk, N.Y.	Computers, office equip.	50,056,000	6,555,000
8	7	**Texaco**	Harrison, N.Y.	Petroleum refining	46,297,000	1,233,000
9	13	**Chevron**	San Francisco	Petroleum refining	41,741,905	1,547,360
10	10	**American Tel. & Tel.**	New York	Electronics	34,909,500	1,556,800
11	9	**E.I. du Pont de Nemours**	Wilmington, Del.	Chemicals	29,483,000	1,118,000
12	11	**General Electric**	Fairfield, Conn.	Electronics	28,285,000	2,336,000
13	12	**Standard Oil (Ind.)**	Chicago	Petroleum refining	27,215,000	1,953,000
14	17	**IRI**	Rome	Metals	26,758,000	(664,000)
15	16	**Toyota Motor**	Toyota City (Japan)	Motor vehicles and parts	26,040,288	1,624,184
16	14	**ENI**	Rome	Petroleum refining	24,460,958	427,180
17	15	**Atlantic Richfield**	Los Angeles	Petroleum refining	22,357,000	(202,000)
18	18	**Unilever**	Rotterdam/London	Food	21,627,167	668,521
19	22	**Chrysler**	Highland Park, Mich.	Motor vehicles and parts	21,255,500	1,635,200
20	21	**Matsushita Electric Industrial**	Osaka (Japan)	Electronics	20,749,191	1,012,044
21	24	**Hitachi**	Tokyo	Electronics	20,525,413	860,448
22	23	**Pemex (Petróleos Mexicanos)**	Mexico City	Petroleum refining	20,380,539	6,178
23	19	**Shell Oil**	Houston	Petroleum refining	20,309,000	1,650,000
24	20	**Elf-Aquitaine**	Paris	Petroleum refining	20,105,843	708,069
25	26	**Française des Pétroles**	Paris	Petroleum refining	19,267,668	163,940
26	25	**U.S. Steel**	Pittsburgh	Petroleum refining	18,429,000	409,000
27	28	**Nissan Motor**	Yokohama (Japan)	Motor vehicles and parts	18,226,032	332,240
28	27	**Philips' Gloeilampenfabrieken**	Eindhoven (Netherlands)	Electronics	18,079,488	276,710
29	30	**Siemens**	Munich	Electronics	17,833,563	490,555
30	32	**Volkswagen**	Wolfsburg (W. Germany)	Motor vehicles and parts	17,831,490	225,930
31	35	**Daimler-Benz**	Stuttgart	Motor vehicles and parts	17,799,929	589,130
32	49	**Nestlé**	Vevey (Switzerland)	Food	17,158,824	711,141
33	29	**Petrobrás (Petróleo Brasileiro)**	Rio de Janeiro	Petroleum refining	16,046,448	1,790,566
34	31	**United Technologies**	Hartford	Aerospace	15,748,674	312,724
35	33	**Phillips Petroleum**	Bartlesville, Okla.	Petroleum refining	15,676,000	418,000
36	36	**Bayer**	Leverkusen (W. Germany)	Chemicals	15,598,199	427,662
37	39	**Tenneco**	Houston	Petroleum refining	15,400,000	172,000
38	42	**BASF**	Ludwigshafen-am-Rhein	Chemicals	15,071,964	338,793
39	34	**Occidental Petroleum**	Los Angeles	Mining, crude-oil product.	14,534,400	696,000
40	40	**Hoechst**	Frankfurt	Chemicals	14,509,874	407,529
41	46	**Fiat**	Turin (Italy)	Motor vehicles and parts	14,193,244	694,423
42	•	**Samsung**	Seoul	Electronics	14,193,095	113,258
43	43	**Mitsubishi Heavy Industries**	Tokyo	Motor vehicles and parts	14,111,863	164,628
44	•	**Hyundai**	Seoul	Transportation equip.	14,024,594	79,601
45	•	**General Motors of Canada**	Oshawa (Canada)	Motor vehicles and parts	13,905,168	521,975
46	48	**Imperial Chemical Industries**	London	Chemicals	13,895,128	663,338
47	41	**Sun**	Radnor, Pa.	Petroleum refining	13,769,000	527,000
48	37	**Kuwait Petroleum**	Safat (Kuwait)	Petroleum refining	13,640,512	693,200
49	•	**Boeing**	Seattle	Aerospace	13,636,000	566,000
50	•	**VÖEST-Alpine**	Linz (Austria)	Metals	13,632,904	(189,247)
		TOTALS			**1,335,392,744**	**52,840,433**

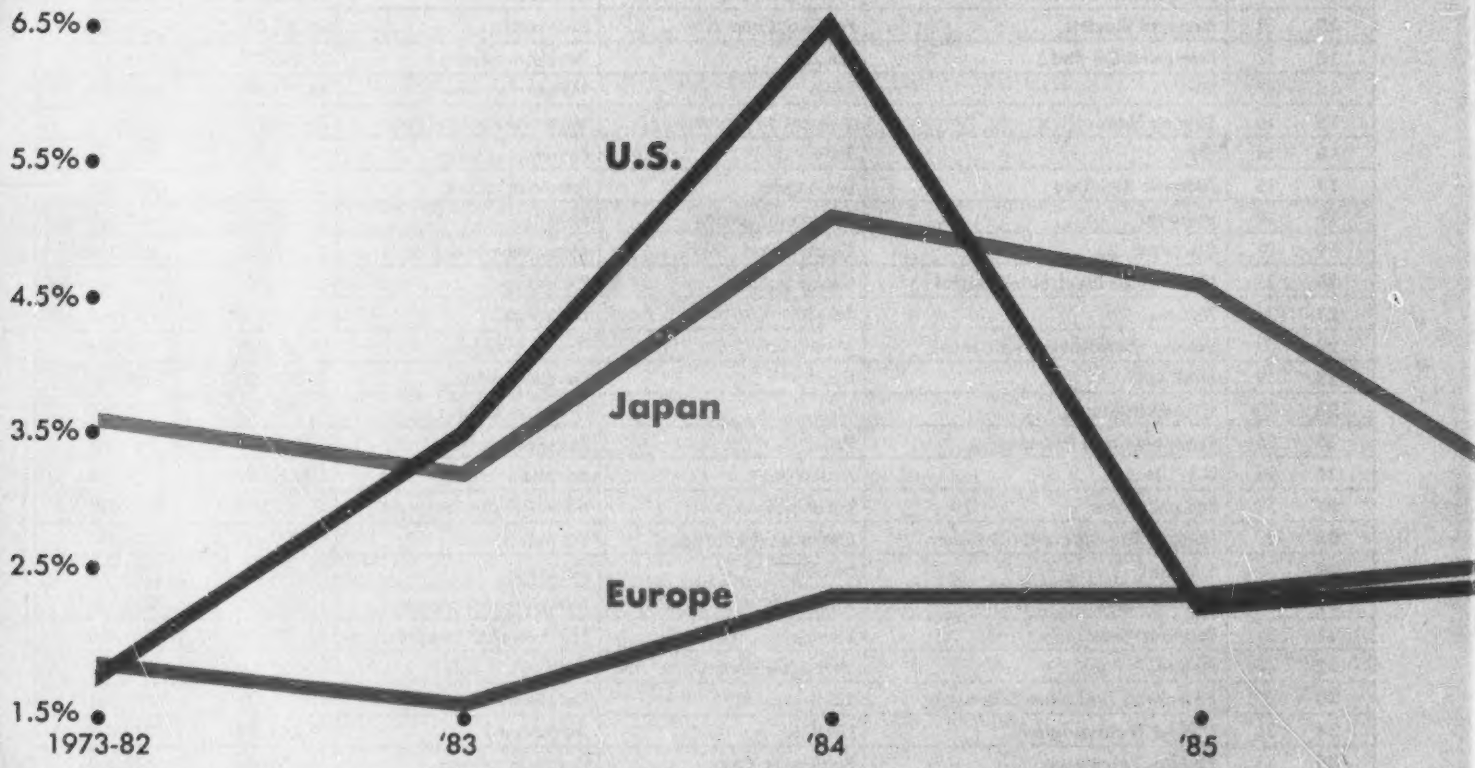
☐ **U.S. companies** ▨ **Non-U.S. companies**

• Not on last year's list.

STRUGGLING TO FIND

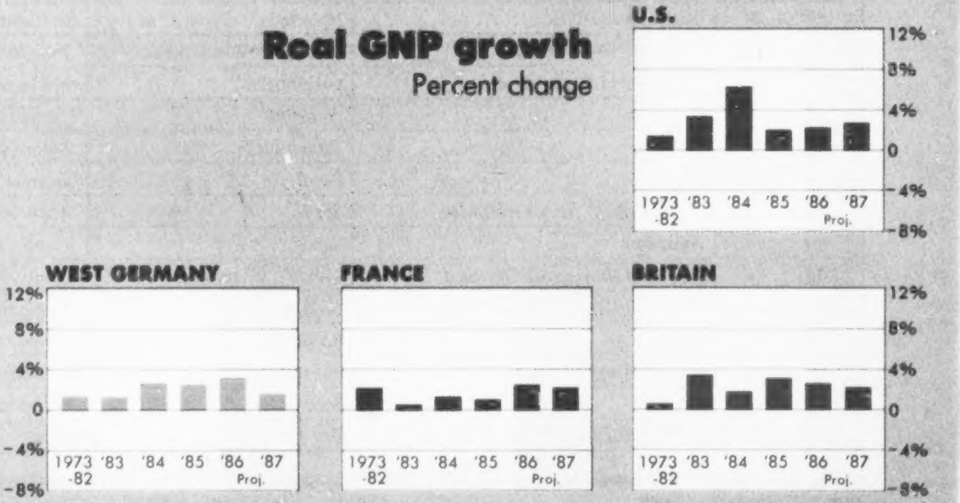
Real GNP growth

Percent change



Half Speed Ahead for the Expansion

■ Unspectacular but steady growth will keep the economies of the major industrial nations on an even keel through the end of next year. Data Resources Inc. projects that real GNP in the U.S. will rise 2.4% in 1986 and 2.9% next year, with demand for domestic goods offsetting slower growth for Japanese imports. Largely as a result of lower export sales, Japan's growth will slow to 2.9% this year; West Germany will manage an increase of 3.4%. Lower oil prices will help oil importers such as Brazil. But they will be catastrophic for such oil exporters as Mexico. Two of the so-called little dragons of Asia, South Korea and Taiwan, will continue to nicely outpace the major industrial nations.



Real GNP growth

Percent change

DATA RESOURCES INC. SUPPLIED ALL FIGURES EXCEPT THOSE FOR UNIT LABOR COSTS, WHICH WERE PROVIDED BY THE BUREAU OF LABOR STATISTICS

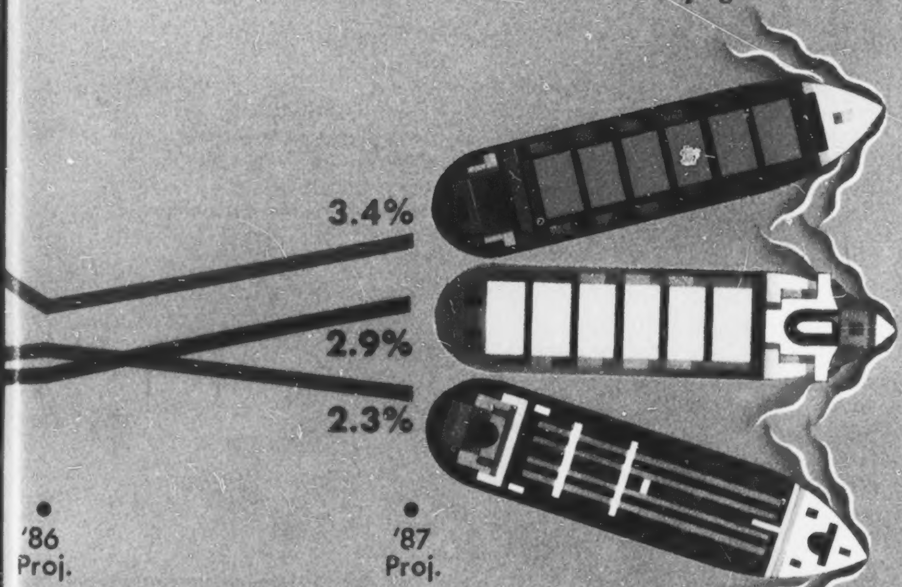
A COMMON COURSE

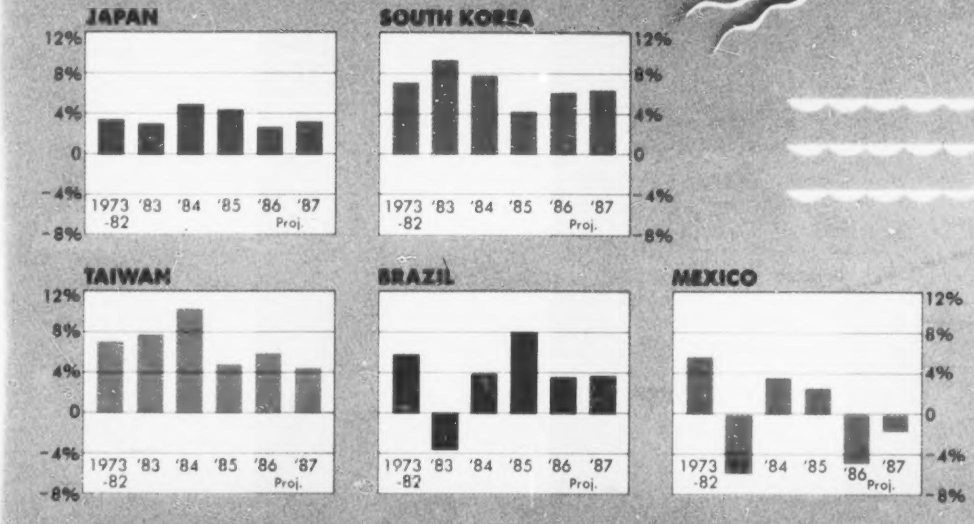
BY ALL APPEARANCES the scary era of economic gloom and uncertainty that stretched from the stagflationary 1970s into the recessions of the early 1980s is over. Growth rates for the major industrial nations have been driven toward remarkably similar paces by cheaper oil, lower inflation, and a weaker dollar. The felicitous combination has conferred a period of relatively balanced, stable growth on the world economy. Lower interest rates and the fallen dollar are helping even most hard-pressed developing countries, since the combination reduces debt-service costs. But they are not solace enough for such oil exporters as Mexico.

Harmony does not spring automatically from stability. Trade imbalances provide the greatest source of friction, and the lower dollar has done little to correct them. In Japan, West Germany, Korea, and Taiwan, much of the economic growth will continue to come from exports. U.S. imports will remain high, keeping the current accounts deficit large. The much-ballyhooed cooperation among industrial nations has not accomplished much. The coordinated assault on the dollar last September by the so-called Group of Five (the U.S., Japan, West Germany, Britain, and France) was dramatic, but the dollar was almost certainly due for a tumble anyway.

Enlarged to seven by the inclusion of Italy and Canada, the group agreed at the Tokyo economic summit in May that members would try to manage their currencies in concert and coordinate the fiscal and monetary policies that shape exchange rates. But individual differences have kept the countries pulling in different directions. Urged by the U.S. to stoke their domestic economies, the West Germans and the Japanese resist for fear of re-igniting inflation; the Germans pointedly remind the U.S. of its towering budget deficit.

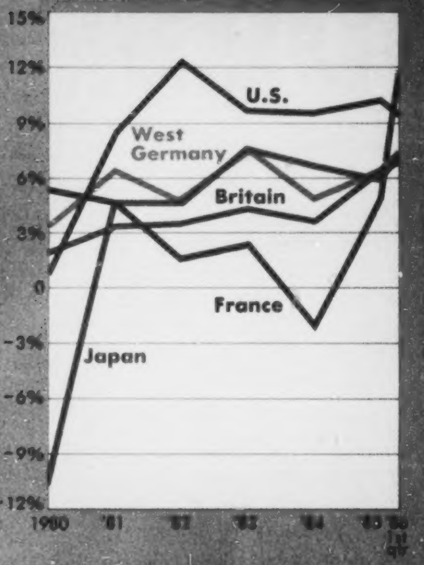
Mounting tensions might yet compel the recalcitrants to put aside these disputes and agree on policy changes that would bring growth rates for domestic demand more closely into line. If trade flows remain lopsided long enough, they could precipitate a full-scale trade war. With their economies growing respectably at rates that are not wildly divergent, the major industrial nations have room to maneuver. They may never get a more propitious time to make a genuine stab at cooperation. **—Monci Jo Williams**





RESEARCH ASSOCIATE: ROSALIND KLEIN BERLIN   DESIGN: LEE ANN JAFFEE   ILLUSTRATIONS: NICHOLAS GAETANO

Real interest rates

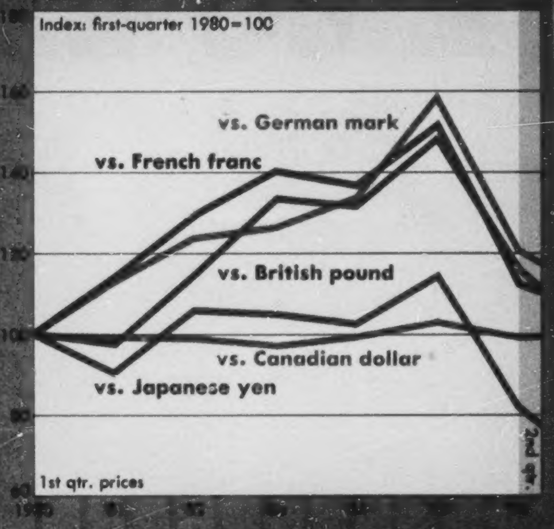


Money Still Costs a Lot

■ The nominal interest rates quoted around the world have been heading lower, helped by plunging oil prices and coordinated discount-rate cuts by the major industrial nations. But real rates are still close to postwar highs. (The inflation-adjusted prime rates plotted here are annual averages through 1985 and a first-quarter rate for 1986.) France, battling inflation, has been keeping money tight and rates high.

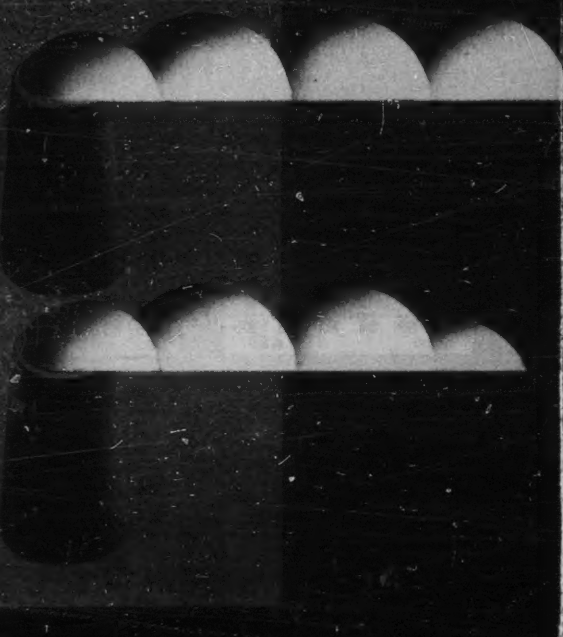
The dollar

Against five other currencies



The Dollar's Uneven Decline

■ Since it peaked in February 1985, the dollar has lost the most ground against the yen. But the decline has yet to reshape world trade patterns, partly because the dollar has held steady or strengthened against several currencies. The Canadian dollar is the most notable of these, since Canada is the U.S.'s largest trading partner.

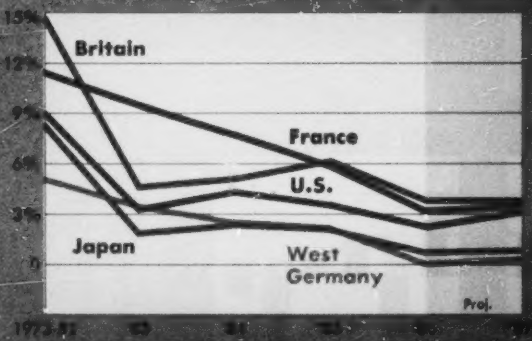


Leaving the Nightmare Behind

■ The horrific inflation of the 1970s is fading into memory. Inflation in the major industrial nations will bottom out in 1986; in the U.S. it will drop to 2.2%, its lowest since 1965. World markets for oil and other commodities will remain weak, and wage settlements modest. But the dollar's decline will tend to push up prices in the U.S. late this year.

Inflation

Percent change in consumer prices

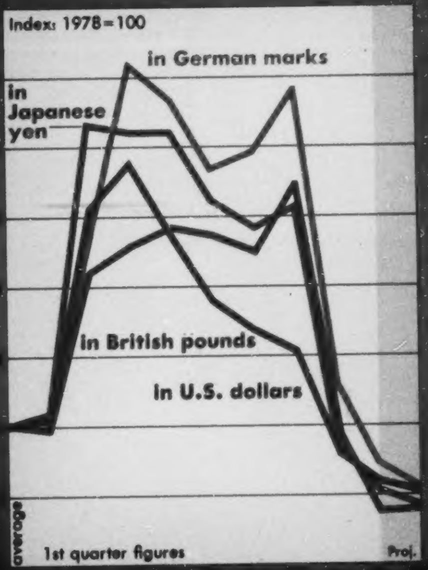


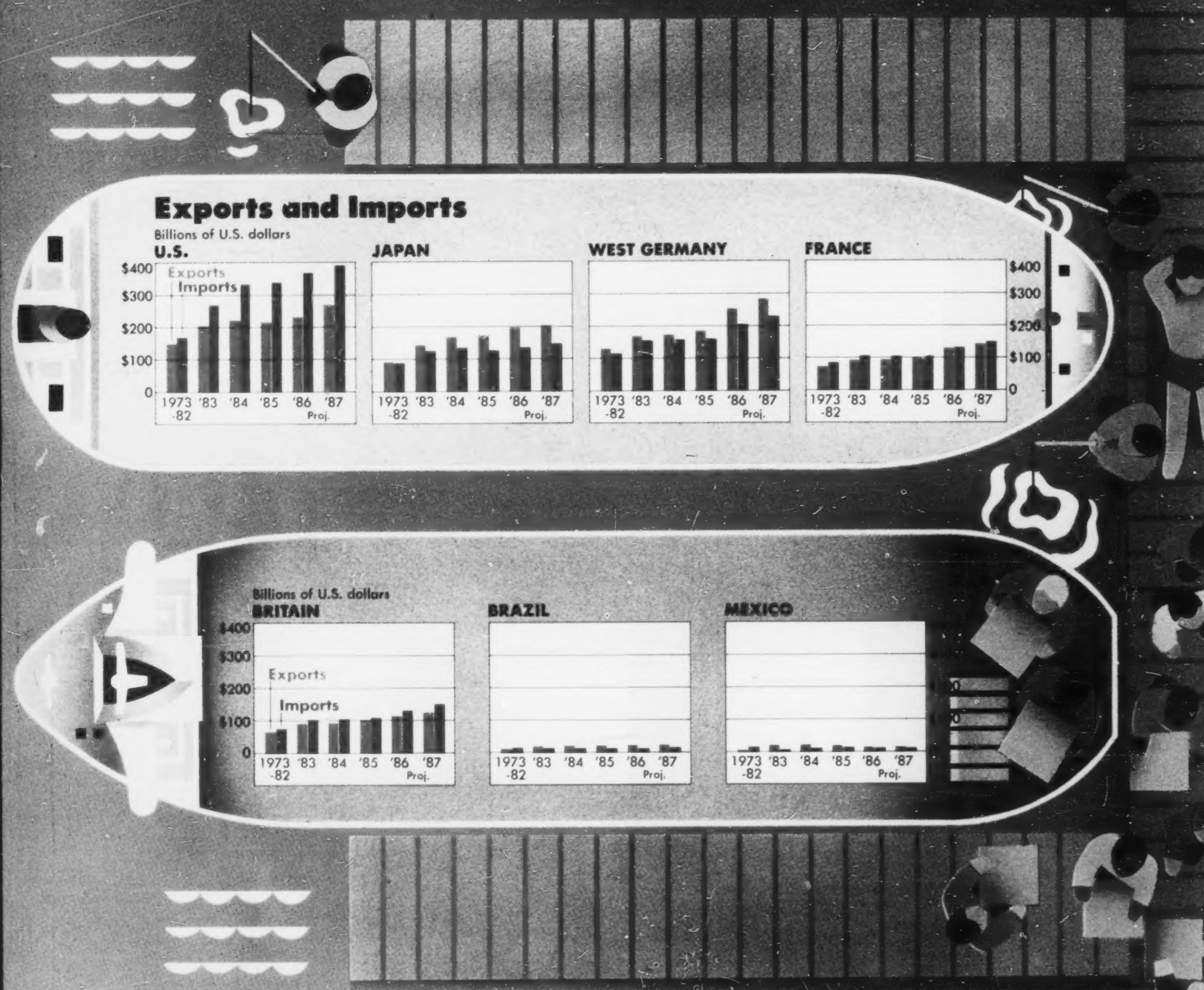
Cheaper Oil's Unequal Blessings

■ Unlike most economic surprises, the drop in oil prices was good news. But the benefits have not been spread equally. Because oil is priced in dollars, the U.S.'s trading partners have enjoyed a much steeper relative cut as the dollar weakened. The chart projection is based on the contract price of oil averaging about $16 per barrel through 1987.

Oil prices

Adjusted for inflation



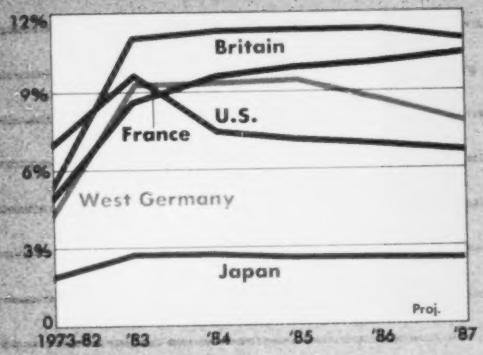


The Trade Imbalance Goes On and On

■ Continuing its role as the world's champion consumer, the U.S. will import far more than it exports through next year. The U.S. trade deficit and the Japanese surplus will each peak in 1986, but large imbalances will remain. Even Brazil and Mexico will enjoy modest trade surpluses, thanks largely to the U.S. market. The volume of goods imported by the U.S. will rise only 1% next year, but the weaker dollar will push their cost up 5.5%. Japanese exports will lose a small share of world markets to South Korea and Taiwan because of the strong yen and the relative increase in Japan's unit labor costs.

Unemployment rates

Percent of total labor force

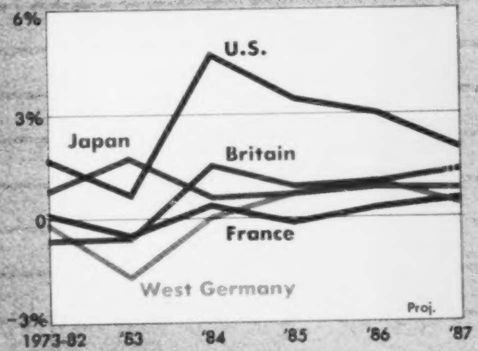


A Dash of Hope for the Jobless

■ Unemployment will fall in three of the five industrial countries through 1987. In France high minimum wages are making it hard for youths to find jobs. Japanese unemployment will remain near the historic high because of weak domestic demand and faster growth in the labor force. Even so, the Japanese rate remains the envy of the world.

Employment growth

Percent change

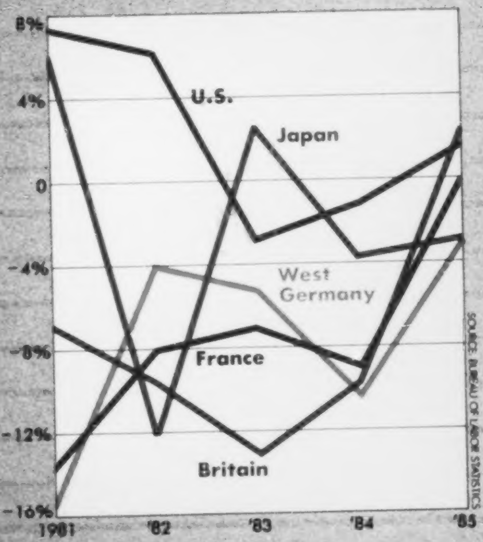


Cranking Up the Job Machine

■ In a profound change of course, the European recovery is creating jobs faster than the work force is growing, with Britain and West Germany leading the way. Common Market companies are starting to add plant and equipment to boost capacity rather than to replace workers. The celebrated U.S. job-creating machine has been slowing along with economic growth.

Unit labor costs

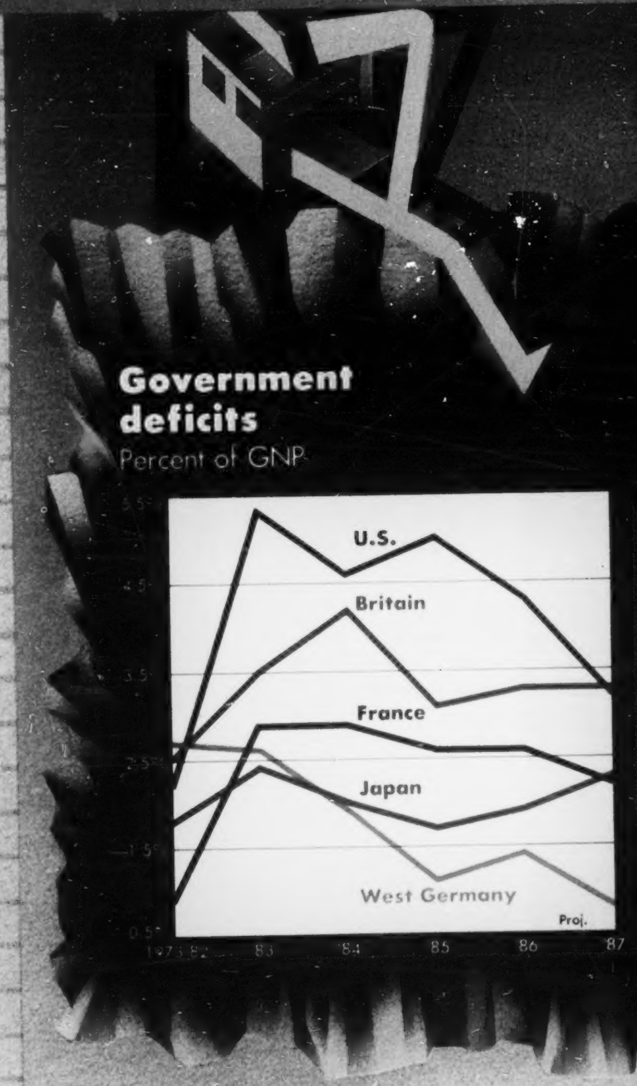
In U.S. dollars, percent change



SOURCE: BUREAU OF LABOR STATISTICS

A Smaller Spread for Labor Costs

■ Nowhere does the dollar's decline show more clearly than in changes in unit labor costs for the U.S. and its major trading partners. Costs have been rising in the U.S. despite modest wage settlements because output and manufacturing productivity growth have slackened. But the dollar's plunge since early 1985 has pushed the unit cost increases in other countries up more rapidly, dramatically reducing the disparity between the U.S. rate and those of its trading partners.



Government deficits

Percent of GNP

The Global War on Profligacy

■ Still the big spender of the industrial world, the U.S. is nonetheless making headway against its epic budget deficits. Whether or not the U.S. meets the targets that are the basis of this forecast—$181 billion in calendar 1986 and $144 billion in 1987—the country's deficit is headed down as a percent of GNP. West Germany, the most parsimonious of the major industrial nations, hopes to get its deficit down to under 1% of GNP in 1987. Japan's deficit is rising because of loans to local governments, government-sponsored institutions, and the like.

THE INTERNATIONAL 500

THE FORTUNE DIRECTORY OF THE LARGEST INDUSTRIAL CORPORATIONS OUTSIDE THE U.S.

In a ho-hum year, the International 500 list has surprises. Fewer Japanese companies appear, and they can't keep up with the South Koreans. Still, some things are predictable: South Africa, IBM's overseas subsidiaries, and state-owned companies.

THE International 500 achieved a second year of rising sales and profits in 1985, but not by much. Sales measured in dollars inched up 3.3%, vs. 7% in 1984. Profits increased only 9%, a puny showing compared with the previous year's 65%. Because of the weakening U.S. dollar, many companies seeking sales in the American market were forced to trim profit margins.

Surprising changes show up in the rankings. Japanese companies, which in recent years joined the list like recruits in wartime, lost three spots this year, but retain 147 (still the most for any nation). Offsetting the arrival of Toyo Tire & Rubber, No. 491, and Toyo Sash, No. 494, was the departure of five Japanese enterprises whose revenues fell short. South Korea added no companies, but the combined sales increase (17%) of the country's ten International 500 corporations outstripped that of the Japanese (5%).

South African companies paid the piper as the political and social costs of the nation's apartheid policy began to produce long-forecast economic consequences. Sales of the eight South African companies on FORTUNE's list declined 17% from 1984. Their profits dropped 36%.

Confirming the world economy's high-tech drift, the revenues of computer companies rose faster than any other industry group's. Computer sales in the U.S. dipped last year, but demand stayed strong in Europe, Asia, and Latin America. West Germany's Nixdorf Computer increased sales 16% and skipped up 44 places, to No. 364. Among other high jumpers were IBM subsidiaries in Japan, West Germany, Britain, and France.

Fifty-two International 500 companies lost money, eight fewer than in 1984. As usual, state-owned enterprises were well represented on the dishonor roll. The biggest loser was the French government's automaker, Renault, No. 30, which pitched $1.2 billion down the drain—$200 million less than in 1984. France's privately held auto company, Peugeot, No. 38, turned a $39-million 1984 loss into a $604-million profit.

For investors the stars were Sweden's AGA and Italy's Fiat. For the 12 months ended May 31, AGA's total return to investors (stock price appreciation plus dividends) in U.S. dollars was a pocket-filling 471%. The chemical manufacturer increased net income 26% and pays out a third of profits as dividends. Fiat's total return, 440%, reflected gains in productivity. Britain's Hanson Trust provided the best five-year return, averaging 136% annually, compounded. The fast-expanding conglomerate boasts that earnings have grown at an annual average rate of 30% over 21 years. The company that investors had the least reason to love: Canada's Dome Petroleum, which went deeply into debt to finance acquisitions just as oil prices dived.

It seems easier for a state-owned company to grow big than to make money. Austria's steelmaker VÖEST-Alpine, No. 29, increased revenues 261% in 1985 over 1984 and leaped 101 places. But the boost came from risky dabblings in the spot-oil market, leading to a loss of $189 million and a major scandal. The company's chief executive and entire management board lost their jobs. The moral may be that not even a state will support bad business judgments indefinitely.

—Alan Farnham and Carrie Gottlieb

RANK		COMPANY	COUNTRY	SALES	ASSETS	NET INCOME	STOCKHOLDERS' EQUITY	EMPLOYEES	TOTAL RETURN TO INVESTORS PERCENT				INDUSTRY CODE
									IN LOCAL CURRENCY		IN U.S. DOLLARS		
'85	'84			$000	$000	$000	$000		5/31/85-5/31/86	5-YEAR AVERAGE	5/31/85-5/31/86	5-YEAR AVERAGE	
1	1	**Royal Dutch/Shell Group**	Neth./Britain	81,743,514	74,920,360	3,928,208	33,863,575	142,000	9.09	26.84	44.83	26.62	29
2	2	**British Petroleum**	Britain	53,100,765	43,589,870	866,745	14,317,060	127,940	15.60	15.59	33.57	7.97	29
3	5	**IRI**[1]	Italy	26,758,000	N.A.	(664,000)	N.A.	483,714	—	—	—	—	33
4	4	**Toyota Motor**[2]	Japan	26,040,288	17,227,126	1,624,184	10,621,800	79,901	29.58	20.91	86.95	27.06	40
5	3	**ENI**[1]	Italy	24,460,958	26,842,566	427,180	4,828,717	129,268	—	—	—	—	29
6	6	**Unilever**	Neth./Britain	21,627,167	13,474,625	668,521	4,888,435	304,000	47.30	29.90	70.21	21.32	20
7	8	**Matsushita Electric Industrial**[3]	Japan	20,749,191	21,451,841	1,012,044	10,130,401	133,963	7.42	5.97	54.86	11.40	36
8	10	**Hitachi**[4]	Japan	20,525,413	20,214,653	860,448	6,523,092	164,951	23.12	6.02	77.81	11.49	36
9	9	**Pemex (Petróleos Mexicanos)**[1]	Mexico	20,380,539[5]	36,633,436[5]	6,178[5]	18,880,864[5]	183,179[5]	—	—	—	—	29
10	7	**Elf-Aquitaine**[1]	France	20,105,843[6]	22,382,551[6]	708,069[6]	5,918,615[6]	73,000[6]	—	—	—	—	29
11	11	**Française des Pétroles**[1]	France	19,267,668[6]	12,318,881[6]	163,940[6]	2,977,955[6]	44,557[6]	—	—	—	—	29
12	13	**Nissan Motor**[4]	Japan	18,226,032	14,501,737	332,240	5,352,371	108,500	(7.17)	1.69	33.96	6.83	40
13	12	**Philips' Gloeilampenfabrieken**	Netherlands	18,079,488	19,202,251	276,710	5,864,561	345,600	4.78	31.77	39.10	31.54	36
14	15	**Siemens**[7]	W. Germany	17,833,563	19,462,811	490,555	4,697,100	348,000	12.73	27.62	49.40	27.66	36
15	16	**Volkswagen**	W. Germany	17,831,490	14,251,964	225,930	2,857,036	259,047	133.40	31.74	209.33	31.78	40
16	17	**Daimler-Benz**	W. Germany	17,799,929	14,622,167	589,130	3,775,171	231,077	70.09	49.00	125.42	49.05	40
17	28	**Nestlé**	Switzerland	17,158,824[6]	12,227,184[6]	711,141[6]	5,214,078[6]	154,769[6]	38.56	24.73	86.02	26.49	20
18	14	**Petrobrás (Petróleo Brasileiro)**[1]	Brazil	16,046,448	12,858,595	1,790,566	5,576,909	61,421	—	—	—	—	29
19	18	**Bayer**	W. Germany	15,598,199[6]	12,404,526[6]	427,662[6]	4,089,806[6]	176,080[6]	38.64	26.08	83.75	26.13	28
20	22	**BASF**	W. Germany	15,071,964[6]	11,584,983[6]	338,793[6]	4,336,085[6]	130,173[6]	37.06	23.21	81.66	23.25	28
21	21	**Hoechst**	W. Germany	14,509,874[6]	11,184,839[6]	407,529[6]	3,126,972[6]	180,561[6]	31.69	26.50	74.52	26.54	28
22	25	**Fiat**	Italy	14,193,244	18,958,633	694,423	4,379,496	226,222	336.08	134.61	439.64	119.94	40
23	38	**Samsung**	South Korea	14,193,095	8,221,531	113,258	998,875	129,039	—	—	—	—	36
24	23	**Mitsubishi Heavy Industries**[4]	Japan	14,111,863	14,378,590	164,628	1,540,052	90,300	33.15	7.43	91.87	13.02	40
25	39	**Hyundai**	South Korea	14,024,594	8,493,891	79,601	1,162,416	156,000	—	—	—	—	37
26	29	**General Motors of Canada**	Canada	13,905,168[8]	3,114,234	521,975	1,594,584	48,106	16.37	15.40	16.20	12.25	40
27	27	**Imperial Chemical Industries**	Britain	13,895,128	12,018,065	663,338	5,050,275	118,600	21.20	32.20	40.12	23.46	28
28	19	**Kuwait Petroleum**[1,2]	Kuwait	13,640,512	18,883,540	693,200	12,853,554	15,044	—	—	—	—	29
29	130	**VÖEST-Alpine**	Austria	13,632,904	6,693,486	(189,247)	283,282	69,917	—	—	—	—	33
30	30	**Renault**[1]	France	13,593,545[6]	14,034,898[6]	(1,215,915)[6]	(981,019)[6]	196,414[6]	—	—	—	—	40
31	35	**Toshiba**[4]	Japan	13,502,659	12,405,968	352,588	2,182,940	114,000	16.82	5.99	68.86	11.45	36
32	20	**Nippon Oil**[4]	Japan	13,477,574	6,338,558	50,772	1,293,845	10,300	—	—	—	—	29
33	31	**Nippon Steel**[4]	Japan	12,534,517	15,410,287	207,080	2,696,291	72,081	16.42	(1.57)	66.67	3.46	33
34	24	**Petróleos de Venezuela**[1]	Venezuela	11,846,756	18,132,045	1,478,281	15,402,221	43,131	—	—	—	—	29
35	●	**Pertamina**[1]	Indonesia	11,579,413	N.A.	616,788	N.A.	N.A.	—	—	—	—	29
36	26	**BAT Industries**	Britain	11,397,244	12,773,800	829,173	5,306,040	197,960	26.42	95.33	46.11	82.50	21
37	32	**Thyssen**[7]	W. Germany	11,357,871	7,119,221	146,699	1,154,873	128,372	59.73	20.57	111.67	20.60	33
38	37	**Peugeot**	France	11,162,493	9,376,623	604,341	890,043	176,800	161.37	48.80	231.52	40.49	40
39	117	**George Weston Holdings**[4]	Britain	11,149,184	3,233,870	126,687	1,025,880	56,000	—	—	—	—	20
40	34	**Canadian Pacific**	Canada	11,011,127	15,334,949	180,626	4,405,923	123,400	(11.49)	4.03	(11.61)	1.19	33
41	41	**Honda Motor**[9]	Japan	10,752,813	5,973,667	532,060	2,806,101	50,609	(11.11)	6.14	28.29	11.58	40
42	36	**Volvo**	Sweden	10,014,445	8,479,604	520,264	2,350,363	67,857	102.23	101.81	144.23	86.16	40
43	43	**Lucky-Goldstar**	South Korea	9,859,920	5,958,868	78,501	1,090,084	62,500	—	—	—	—	29
44	45	**Petrofina**	Belgium	9,834,332	7,198,541	287,478	1,667,138	22,700	31.18	—	71.41	—	29
45	42	**Ford Motor of Canada**	Canada	9,775,557	2,125,635	145,690	768,395	29,700	9.06	28.53	8.90	25.03	40
46	40	**Idemitsu Kosan**[4]	Japan	9,439,451[5]	6,859,045[5]	20,730[5]	157,507[5]	5,921[5]	—	—	—	—	29
47	50	**NEC**[4]	Japan	9,246,225	10,801,598	274,872	1,901,494	90,102	58.58	25.89	128.99	32.34	36
48	46	**CGE (Cie. Générale d'Électricité)**[1]	France	8,741,903	13,990,916	84,752	981,299	153,800	—	—	—	—	36
49	48	**Daewoo**	South Korea	8,698,021	8,985,506	53,587	842,915	92,745	—	—	—	—	45
50	33	**Esso UK**	Britain	8,645,944[8]	6,261,329	820,752	1,343,994	5,803	—	—	—	—	29

THE DEFINITIONS AND CONCEPTS UNDERLYING THE FIGURES IN THIS DIRECTORY ARE EXPLAINED ON PAGE 203.

● Not on last year's list.

N.A. Not available.

[1] Government-owned.

[2] Figures are for fiscal year ended June 30, 1985.

[3] Figures are for fiscal year ended November 20, 1985.

[4] Figures are for fiscal year ended March 31, 1985.

[5] Parent only.

[6] Also includes certain subsidiaries owned 50% or less, either fully or on a prorated basis.

[7] Figures are for fiscal year ended September 30, 1985.

[8] Revenues include certain sales to foreign affiliates of the U.S. parent company.

[9] Figures are for fiscal year ended February 28, 1985.

RANK		COMPANY	COUNTRY	SALES	ASSETS	NET INCOME	STOCK-HOLDERS' EQUITY	EMPLOY-EES	TOTAL RETURN TO INVESTORS PERCENT				INDUST CODE
'85	'84			$000	$000	$000	$000		IN LOCAL CURRENCY 5/31/85-5/31/86	5-YEAR AVERAGE	IN U.S. DOLLARS 5/31/85-5/31/86	5-YEAR AVERAGE	
51	44	**Indian Oil**[1,4]	India	8,279,652	2,462,375	70,615	679,212	31,081	—	—	—	—	29
52	53	**Mitsubishi Electric**[4]	Japan	8,200,629	7,234,498	192,570	1,538,339	68,745	(5.03)	2.56	37.20	7.88	36
53	49	**Ruhrkohle**	W. Germany	7,646,883	6,950,534	38,765	411,902	133,157	—	—	—	—	10
54	58	**Saint-Gobain**[1]	France	7,555,704[6]	10,149,051[6]	81,803[6]	1,278,188[6]	148,922[6]	—	—	—	—	32
55	51	**Ciba-Geigy**	Switzerland	7,404,403	10,954,854	598,171	6,785,437	81,012	36.53	31.36	83.29	33.21	28
56	56	**Montedison**	Italy	7,400,890	8,725,420	59,178	958,034	69,653	135.59	—	193.24	—	28
57	57	**DSM**[1]	Netherlands	7,265,333[6]	4,856,655[6]	121,094[6]	1,030,434[6]	26,615[6]	—	—	—	—	28
58	64	**Robert Bosch**	W. Germany	7,207,950	6,177,692	124,862	1,686,327	142,923	—	—	—	—	40
59	47	**Rio Tinto-Zinc**	Britain	6,880,582	10,207,480	271,036	2,538,576	75,197	15.85	9.75	33.94	2.49	10
60	121	**Showa Shell Sekiyu**[10]	Japan	6,819,821[5]	4,760,524[5]	10,937[5]	227,561[5]	3,157[5]	—	—	—	—	29
61	61	**Thomson**[1]	France	6,682,916[6]	9,964,569[6]	14,023[6]	672,794[6]	107,000[6]	—	—	—	—	36
62	67	**Mazda Motor**[11]	Japan	6,680,968	4,432,569	160,151	1,422,969	29,148	—	—	—	—	40
63	116	**Türkiye Petrolleri**[1]	Turkey	6,643,699	6,046,181	456,145	1,252,817	16,670	—	—	—	—	29
64	54	**General Electric**	Britain	6,556,571	5,990,892	520,809	2,953,298	165,593	14.77	56.82	32.68	46.45	36
65	55	**Veba Oel**	W. Germany	6,475,507[6]	3,040,985[6]	(20,302)[6]	521,093[6]	15,975[6]	51.62	23.96	100.94	24.00	29
66	68	**Esso (Germany)**	W. Germany	6,439,953[8]	1,880,064	64,509	532,693	3,670	—	—	—	—	29
67	62	**Sunkyong**	South Korea	6,436,703	2,480,751	55,057	425,305	19,454	—	—	—	—	29
68	84	**Fujitsu**[4]	Japan	6,396,195	6,855,159	364,498	2,424,171	74,187	7.57	26.05	55.07	32.52	44
69	63	**Imperial Oil**	Canada	6,345,188	6,579,907	464,157	3,608,867	14,674	(17.14)	6.05	(17.27)	3.17	29
70	72	**Nippon Kokan**[4]	Japan	6,285,820	10,308,247	77,896	1,099,215	36,851	8.60	(3.51)	56.45	1.29	33
71	66	**Fried. Krupp**	W. Germany	6,276,035	4,404,635	28,707	674,002	67,402	—	—	—	—	33
72	74	**Rhône-Poulenc**[1]	France	6,243,962[6]	6,032,368[6]	257,318[6]	1,710,689[6]	78,000[6]	—	—	—	—	28
73	70	**Sanyo Electric**[12]	Japan	6,227,998	6,233,127	149,342	2,083,785	25,429	2.72	(2.47)	47.76	2.46	36
74	75	**Mannesmann**	W. Germany	6,171,069	4,808,384	77,700	1,080,194	107,804	38.22	14.12	83.20	14.16	45
75	71	**Schlumberger**	Neth. Antilles	6,119,447	11,282,232	351,036	6,877,209	72,810	(38.20)	(3.24)	(21.62)	(8.65)	38
76	69	**Grand Metropolitan**[7]	Britain	6,036,606	6,078,663	338,158	2,767,702	137,200	59.09	34.15	83.76	25.26	49
77	65	**Maruzen Oil**[4]	Japan	6,014,768	2.676,195	102,048	(111,837)	1,992	—	—	—	—	29
78	106	**Statoil**	Norway	5,979,417	6,082,190	253,968	659,103	7,055	—	—	—	—	29
79	52	**Barlow Rand**[7]	South Africa	5,861,085	3,647,252	(21,569)	692,127	151,514	52.45	—	(22.96)	—	20
80	81	**Sony**[11,13]	Japan	5,776,507	6,841,224	297,409	2,832,252	44,908	(12.64)	(6.95)	26.05	(2.20)	36
81	77	**Alcan Aluminium**	Canada	5,718,000	6,861,000	(180,000)	2,746,000	70,000	36.01	6.73	35.81	3.82	33
82	80	**Neste**[1]	Finland	5,684,359	4,019,925	20,221	195,278	8,496	—	—	—	—	29
83	89	**Brown Boveri**	Switzerland	5,638,741	9,599,029	37,386	2,539,806	97,800	51.90	7.25	101.32	7.29	36
84	91	**Broken Hill Proprietary**[14]	Australia	5,631,217	8,033,384	527,606	3,925,987	58,000	110.50	63.28	127.72	48.72	33
85	73	**Chinese Petroleum**[1]	Taiwan	5,520,716	4,397,197	437,655	2,851,960	22,077	—	—	—	—	29
86	83	**Akzo Group**	Netherlands	5,422,732	4,268,446	253,826	1,503,849	65,000	68.90	58.03	124.25	57.73	28
87	110	**Sacilor**[1]	France	5,406,709[6]	7,702,740[6]	(585,129)[6]	(2,812,369)[6]	69,504[6]	(12.62)	9.37	10.96	3.26	33
88	76	**Kobe Steel**[4]	Japan	5,314,869	7,746,303	42,555	606,542	32,524	18.19	(0.77)	69.44	4.27	33
89	90	**Sumitomo Metal Industries**[4]	Japan	5,313,817	9,039,637	103,260	1,284,880	34,010	1.75	(8.65)	46.38	(4.02)	33
90	87	**Ford Motor**	Britain	5,240,633[8]	5,294,480	148,992	1,830,815	51,200	—	—	—	—	40
91	86	**Michelin**	France	5,190,997	3,041,444	110,052	968,055	N.A.	240.00	31.35	331.20	24.01	30
92	92	**Chrysler Canada**	Canada	5,154,632	1,129,958	101,079	358,362	12,356	2.41	48.94	2.26	44.89	40
93	93	**Mitsubishi Chemical Industries**[15]	Japan	5,112,348	4,512,822	97,657	416,852	16,474	35.17	24.24	94.49	30.56	28
94	78	**Nippon Mining**[4]	Japan	5,044,411	3,785,721	16,221	348,554	8,083	4.83	25.25	51.52	31.60	29
95	98	**BTR**	Britain	5,027,639	4,460,859	293,450	1,467,397	85,800	166.28	81.80	207.82	69.80	45
96	101	**Adam Opel**	W. Germany	5,024,802[8]	2,912,276	(45,936)	624,352	57,273	—	—	—	—	40
97	97	**BMW (Bayerische Motoren Werke)**	W. Germany	5,006,668	3,017,392	102,187	793,277	47,777	55.82	37.24	106.50	37.29	40
98	99	**Kawasaki Steel**[4]	Japan	5,000,796[5]	7,765,223[5]	83,071[5]	1,335,554[5]	27,863[5]	18.08	(2.03)	71.21	3.10	33
99	111	**ENPETROL**[1]	Spain	4,930,725	2,018,463	14,804	649,498	5,946	—	—	—	—	29
100	102	**Ford-Werke**	W. Germany	4,905,511[8]	2,468,041	(85,274)	438,414	45,991	3.47	(0.72)	37.13	(0.69)	40

N.A. Not available.

[10] Name changed from Showa Oil on January 1, 1985.

[11] Figures are for fiscal year ended October 31, 1985.

[12] Figures are for fiscal year ended November 30, 1985.

[13] Includes only wholly owned subsidiaries.

[14] Figures are for fiscal year ended May 31, 1985.

[15] Figures are for fiscal year ended January 31, 1985.

RANK '85	RANK '84	COMPANY	COUNTRY	SALES $000	ASSETS $000	NET INCOME $000	STOCK-HOLDERS' EQUITY $000	EMPLOY-EES	TOTAL RETURN TO INVESTORS PERCENT IN LOCAL CURRENCY 5/31/85-5/31/86	5-YEAR AVERAGE	IN U.S. DOLLARS 5/31/85-5/31/86	5-YEAR AVERAGE	INDU COD
101	109	**Norsk Hydro**	Norway	4,875,051	6,024,274	241,875	1,397,230	26,413	51.44	89.75	71.55	78.36	28
102	82	**Toa Nenryo Kogyo**	Japan	4,832,860	3,631,391	115,848	1,334,797	3,876	45.78	21.22	110.08	27.42	29
103	60	**YPF (Yacimientos Petrolíferos)**[1]	Argentina	4,703,246	9,240,314	(697,129)	2,520,428	32,455	–	–	–	–	29
104	112	**Taiyo Fishery**[15]	Japan	4,702,293	1,775,110	7,773	57,751	9,843	11.70	20.53	61.40	26.86	20
105	88	**British Steel**[1,4]	Britain	4,690,798	4,579,380	(516,038)	2,871,228	73,650	–	–	–	–	33
106	115	**Sharp**[4]	Japan	4,671,672	4,422,920	162,703	1,425,861	28,221	16.11	5.34	67.37	10.73	36
107	107	**ASEA**	Sweden	4,670,410	5,476,700	160,680	1,039,472	60,979	212.63	102.37	277.54	86.68	45
108	114	**Electrolux**	Sweden	4,611,041	3,897,558	162,074	836,568	93,600	55.29	36.36	87.52	25.79	36
109	134	**Isuzu Motors**[11]	Japan	4,601,156	3,942,657	66,951	487,662	24,206	(10.35)	(2.81)	29.09	2.10	40
110	79	**Dalgety**[2]	Britain	4,597,748	1,132,063	41,986	404,897	18,783	174.15	44.72	216.48	35.16	20
111	123	**IBM Deutschland**	W. Germany	4,493,532*	3,413,739	289,383	817,327	28,172	–	–	–	–	44
112	100	**BL**[1]	Britain	4,424,904	3,281,618	(178,864)	847,306	77,044	5.41	18.07	21.28	10.25	40
113	104	**Gutehoffnungshütte**[2]	W. Germany	4,387,056	4,064,029	148,598	535,276	54,545	41.62	7.45	87.68	7.49	45
114	295	**Charbonnages de France**[1]	France	4,384,307	5,777,822	(170,729)	236,563	70,800	–	–	–	–	28
115	85	**Daikyo Oil**[4]	Japan	4,352,054	1,260,928	2,899	43,936	1,881	–	–	–	–	29
116	96	**Mitsubishi Oil**[4]	Japan	4,273,421	3,172,606	(36,074)	2,112	3,184	29.45	11.77	86.08	17.55	29
117	149	**Northern Telecom**	Canada	4,259,776	3,488,023	301,190	1,686,521	46,549	(18.87)	51.02	(18.99)	46.91	3
118	129	**IBM France**	France	4,181,080[5]	3,108,625[5]	319,978[5]	1,274,059[5]	22,452[5]	–	–	–	–	44
119	144	**Sumitomo Chemical**	Japan	4,177,330	5,201,154	42,991	605,683	12,561	42.14	18.82	105.45	25.02	2
120	127	**Dow Chemical Europe**	Switzerland	4,100,000*	2,939,000	N.A.	N.A.	13,500	–	–	–	–	2
121	124	**Asahi Chemical Industry**[4]	Japan	4,084,065	3,449,554	66,731	861,183	21,366	(19.71)	30.01	15.90	36.71	2
122	94	**Preussag**	W. Germany	4,067,002[6]	2,374,276[6]	(1,985)[6]	367,154[6]	31,239[6]	(29.64)	12.61	(6.74)	12.65	3
123	105	**Usinor**[1]	France	4,047,301	5,878,388	(381,747)	935,198	44,217	7.94	(0.86)	37.31	(6.39)	3
124	113	**Thorn EMI**[4]	Britain	4,023,339	2,696,828	47,460	770,522	89,354	3.31	7.88	19.36	0.74	3
125	143	**Canon**	Japan	4,008,023	4,998,971	155,393	1,663,660	34,129	(8.93)	7.98	31.32	13.51	4
126	120	**Pechiney**[1]	France	3,997,440[6]	5,198,801[6]	81,469[6]	1,302,165[6]	48,100[6]	–	–	–	–	3
127	163	**IBM United Kingdom Holdings**	Britain	3,942,459*	2,079,355	399,040	1,064,965	18,798	–	–	–	–	4
128	147	**Nippondenso**	Japan	3,925,152	3,877,263	178,679	2,088,914	39,180	9.51	27.45	57.96	33.97	4
129	103	**Ishikawajima-Harima Heavy Ind.**[4]	Japan	3,869,013	6,074,988	35,022	570,319	39,000	32.75	3.98	91.30	9.20	4
130	158	**IBM Japan**	Japan	3,835,081[5],*	2,948,170[5]	306,101[5]	1,351,700[5]	16,775[5]	–	–	–	–	4
131	122	**Degussa**[7]	W. Germany	3,824,868	1,608,685	36,517	336,444	23,898	35.67	21.34	79.80	21.38	3
132	136	**L.M. Ericsson Telephone**	Sweden	3,817,493[6]	4,900,594[6]	85,452[6]	1,068,185[6]	78,159[6]	2.46	39.98	23.75	29.14	3
133	180	**Aérospatiale**[1]	France	3,812,688[5]	7,227,706[5]	60,434[5]	412,388[5]	43,219[5]	–	–	–	–	4
134	125	**Solvay**	Belgium	3,796,722[6]	3,684,715[6]	103,186[6]	1,191,948[6]	44,461[6]	90.12	–	148.45	–	2
135	164	**Saab-Scania**	Sweden	3,699,268	3,524,109	74,669	568,961	46,807	108.17	55.41	151.40	43.37	4
136	135	**Petro-Canada**[1]	Canada	3,697,703	6,325,414	(505,903)	2,604,481	10,565	–	–	–	–	2
137	139	**Ssangyong**	South Korea	3,689,120	2,939,721	28,438	566,268	13,285	–	–	–	–	2
138	126	**AEG Aktiengesellschaft**[16]	W. Germany	3,682,628[6]	3,403,792[6]	—[6]	855,064[6]	73,760[6]	151.81	47.30	233.69	47.35	3
139	128	**Metallgesellschaft**[7]	W. Germany	3,659,500	1,925,215	18,050	308,926	21,384	56.04	5.11	106.81	5.15	3
140	142	**Pirelli**	Switzerland	3,650,000	3,200,000	101,000	1,500,000	61,500	80.76	26.22	123.60	18.46	3
141	140	**Roche/Sapac**	Switzerland	3,633,079	6,107,767	182,459	3,860,922	45,477	–	–	–	–	4
142	150	**Bridgestone**	Japan	3,624,339	3,781,099	87,576	1,387,516	32,834	40.34	13.35	102.37	19.17	3
143	151	**Mobil Oil (Germany)**	W. Germany	3,466,405[5],*	1,398,464[5]	119,695[5]	449,530[5]	2,162[5]	–	–	–	–	2
144	161	**Sandoz**	Switzerland	3,435,016	4,055,340	214,968	2,232,524	40,166	66.68	28.14	123.77	29.95	4
145	169	**Asahi Glass**	Japan	3,430,362	4,035,855	126,961	1,539,441	17,448	42.80	20.85	105.90	27.01	3
146	156	**British Aerospace**	Britain	3,430,303	3,961,840	164,556	1,714,114	75,823	35.89	23.18	57.22	15.05	4
147	148	**Rothmans International**[4]	Britain	3,413,759	2,218,755	52,932	567,936	23,421	–	–	–	–	2
148	132	**Imperial Group**[11]	Britain	3,401,218*	4,069,268	136,037	2,186,535	89,014	106.67	47.52	138.89	37.82	2
149	145	**Kawasaki Heavy Industries**[4]	Japan	3,380,764	4,236,602	32,704	353,542	26,369	2.95	(4.83)	50.00	0.20	4
150	141	**Allied-Lyons**[9]	Britain	3,368,992	2,721,398	142,086	1,414,239	44,967	76.57	42.83	103.93	33.44	4

N.A. Not available.

[16] Name changed from AEG-Telefunken on June 27, 1985.

* FORTUNE estimate.

RANK		COMPANY	COUNTRY	SALES	ASSETS	NET INCOME	STOCKHOLDERS' EQUITY	EMPLOYEES	TOTAL RETURN TO INVESTORS PERCENT				INDUSTRY CODE
									IN LOCAL CURRENCY		IN U.S. DOLLARS		
'85	'84			$000	$000	$000	$000		5/31/85-5/31/86	5-YEAR AVERAGE	5/31/85-5/31/86	5-YEAR AVERAGE	
151	154	**Snow Brand Milk Products**[4]	Japan	3,364,056	1,308,705	17,437	198,482	14,566	11.39	24.81	61.04	31.12	20
152	172	**Komatsu**	Japan	3,338,978	5,011,536	91,900	1,869,263	23,227	8.43	7.45	56.48	12.85	45
153	152	**Oil & Natural Gas Commission**[1]	India	3,328,985[5]	6,862,667[5]	743,191[5]	2,558,336[5]	41,591[5]	–	–	–	–	29
154	153	**Hanson Trust**[7]	Britain	3,317,696	4,016,760	253,681	1,584,281	64,000	51.07	152.63	74.65	135.98	20
155	●	**Feldmühle Nobel**	W. Germany	3,281,339	3,281,827	78,478	912,070	42,602	–	–	–	–	26
156	138	**ALUSUISSE (Swiss Aluminium)**	Switzerland	3,252,232	4,012,136	(281,328)	925,631	33,631	(22.65)	(7.70)	3.84	(6.40)	33
157	160	**Toray Industries**[4]	Japan	3,246,970	3,321,641	55,530	830,219	29,689	–	–	–	–	28
158	195	**Olivetti**	Italy	3,215,744	4,271,515	263,771	1,366,734	48,944	155.32	37.33	215.78	28.86	44
159	119	**Esso (France)**	France	3,204,396[8]	1,536,663	1,202	663,430	3,723	(11.00)	33.94	12.87	26.45	29
160	137	**CEPSA (Española de Petróleos)**	Spain	3,192,646	1,310,270	46,049	308,542	3,939[5]	–	–	–	–	29
161	133	**Texaco**	Britain	3,178,897[8]	1,238,129	165,550	375,846	3,553	–	–	–	–	29
162	165	**BSN**	France	3,169,171[6]	2,805,594[6]	88,815[6]	971,562[6]	33,447[6]	38.64	38.70	75.84	30.95	20
163	157	**Henkel**	W. Germany	3,132,711	2,428,394	57,572	1,021,291	30,935	–	–	–	–	28
164	166	**Deutsche Texaco**	W. Germany	3,128,140[8]	1,158,422	16,169	282,686	3,998	30.21	24.12	72.57	24.16	29
165	155	**Esso Italiana**	Italy	3,097,965[5]	1,085,753[5]	(28,770)[5]	53,957[5]	2,521[5]	–	–	–	–	29
166	95	**Texaco Canada**	Canada	3,083,643	2,596,353	245,989	1,626,028	3,711	(13.65)	0.66	(13.77)	(2.08)	29
167	108	**Ultramar**	Britain	3,054,726	2,713,565	92,764	1,101,379	3,719	(19.10)	17.28	(6.54)	9.54	29
168	146	**Salzgitter**[1,7]	W. Germany	3,051,764	2,901,411	16,259	427,775	42,094	–	–	–	–	33
169	179	**Dai Nippon Printing**[14]	Japan	2,996,564	2,215,470	103,834	1,212,803	13,692	80.27	31.24	160.22	37.97	27
170	181	**ÖMV**	Austria	2,980,633[5]	1,975,582[5]	11,623[5]	669,243[5]	7,038[5]	–	–	–	–	29
171	198	**EFIM**[1]	Italy	2,958,890[5]	N.A.[5]	(238,806)[5]	N.A.[5]	39,000[5]	–	–	–	–	33
172	184	**Fuji Photo Film**[18]	Japan	2,958,495	4,232,033	268,212	2,317,202	16,915	48.45	14.21	114.22	20.05	28
173	175	**Koç Holding**	Turkey	2,958,301	1,067,347	51,155	153,592	31,075	–	–	–	–	40
174	168	**Haci Ömer Sabanci Holding**	Turkey	2,933,606	2,779,630	83,369	203,544	27,939	–	–	–	–	22
175	177	**Beecham Group**[4]	Britain	2,874,118	2,759,864	217,966	1,446,614	37,500	5.34	19.41	21.86	11.51	42
176	182	**General Sekiyu**[4]	Japan	2,868,773[5]	1,766,602[5]	4,950[5]	252,155[5]	1,611[5]	–	–	–	–	29
177	178	**Guest Keen & Nettlefolds**	Britain	2,849,764	2,326,450	55,451	916,997	48,300	54.55	23.00	78.85	14.91	40
178	171	**Steel Authority of India**[1]	India	2,777,100[5]	6,484,172[5]	3,571[5]	3,043,975[5]	206,711[5]	–	–	–	–	33
179	200	**Sumitomo Electric Industries**[4]	Japan	2,755,503	2,414,984	57,139	713,215	21,680	45.03	28.47	109.45	34.99	34
180	185	**Korea Explosives**	South Korea	2,750,020	2,157,956	2,478	444,980	16,347	–	–	–	–	28
181	279	**Imasco**[4]	Canada	2,747,193	2,004,806	177,370	969,493	61,373	33.31	86.83	33.11	81.74	21
182	183	**BICC**	Britain	2,732,385	1,524,475	36,276	403,155	46,400	38.77	10.83	60.23	3.49	45
183	187	**Toppan Printing**[14]	Japan	2,717,363	1,857,193	77,194	843,045	13,251	115.97	35.71	211.35	42.65	27
184	189	**Suzuki Motor**[4]	Japan	2,713,480	1,648,283	34,195	383,056	16,730	0.58	8.50	45.11	14.01	40
185	170	**Courtaulds**[4]	Britain	2,701,855	1,721,130	94,670	645,439	70,000	104.02	40.00	135.59	30.72	22
186	203	**Fuji Heavy Industries**[4]	Japan	2,677,931[5]	1,679,060[5]	60,518[5]	510,842[5]	13,933[5]	(5.90)	11.71	35.71	17.38	40
187	192	**Conoco**	Britain	2,664,755	1,116,118	55,581	599,964	1,503	–	–	–	–	29
188	167	**Reed International**[4]	Britain	2,655,775	1,651,172	99,064	802,288	43,238	45.99	33.53	68.65	24.74	27
189	191	**Kubota**[19]	Japan	2,630,667	2,879,428	61,462	1,071,534	18,000	9.75	3.05	58.22	8.31	45
190	190	**STC**[20]	Britain	2,587,538	1,781,107	(69,702)	677,416	43,200	(20.52)	24.12	(8.11)	15.95	36
191	199	**Hoesch**	W. Germany	2,540,115	2,722,752	134,280	474,731	33,100	–	–	–	–	33
192	59	**National Coal Board**[1,4]	Britain	2,533,734	8,417,160	–	(38,316)	225,850	–	–	–	–	10
193	193	**Hiram Walker Resources**[7]	Canada	2,529,738	4,192,560	236,168	1,670,314	10,660	23.13	10.39	22.94	7.38	49
194	194	**Noranda**	Canada	2,517,621	4,462,395	(185,863)	1,686,750	25,400	30.48	(7.96)	30.28	(10.47)	33
195	206	**Saarbergwerke**[1]	W. Germany	2,508,208[6]	1,917,896[6]	(5,146)[6]	280,580[6]	30,459[6]	–	–	–	–	29
196	207	**Furukawa Electric**[4]	Japan	2,485,687	2,583,873	5,273	306,558	14,182	31.16	11.61	89.21	17.39	33
197	214	**United Biscuits (Holdings)**	Britain	2,470,936	1,383,732	73,460	598,085	41,467	34.82	22.83	56.14	14.72	20
198	211	**Matsushita Electric Works**[12]	Japan	2,462,086	2,135,195	59,646	995,359	16,244	75.91	20.98	154.13	27.19	36
199	186	**Cadbury Schweppes**	Britain	2,427,663	1,752,640	54,285	680,595	33,797	6.09	20.87	22.71	12.89	20
200	188	**Unigate**[4]	Britain	2,426,007	1,015,127	39,299	381,059	33,200	76.42	28.92	104.07	20.38	20

● Not on last year's list.

N.A. Not available.

[18] Figures are for fiscal year ended October 20, 1985.

[19] Figures are for fiscal year ended April 15, 1985.

[20] Name changed from Standard Telephones & Cables on June 17, 1985.

RANK		COMPANY	COUNTRY	SALES	ASSETS	NET INCOME	STOCKHOLDERS' EQUITY	EMPLOYEES	TOTAL RETURN TO INVESTORS PERCENT				INDUSTRY CODE
'85	'84			$000	$000	$000	$000		IN LOCAL CURRENCY 5/31/85-5/31/86	5-YEAR AVERAGE	IN U.S. DOLLARS 5/31/85-5/31/86	5-YEAR AVERAGE	
201	202	Bertelsmann[2]	W. Germany	2,414,909[6]	1,409,747[6]	58,448[6]	262,969[6]	31,835[6]	–	–	–	–	27
202	205	Teijin[4]	Japan	2,411,582	2,179,645	66,817	573,502	11,502	17.65	26.36	69.65	32.98	28
203	366	Mobil Oil Italiana	Italy	2,401,464[3]	757,990[5]	(3,809)[5]	20,983[5]	1,172[5]	–	–	–	–	29
204	216	Hyosung	South Korea	2,390,331	1,988,828	18,802	359,457	23,500	–	–	–	–	28
205	159	Canada Development Corp.	Canada	2,384,479	5,190,561	125,117	1,086,879	17,808	(31.91)	(9.09)	(32.00)	(11.56)	30
206	209	Pohang Iron & Steel	South Korea	2,376,059[5]	3,728,076[5]	71,634[5]	1,698,394[5]	17,000[5]	–	–	–	–	33
207	201	Ube Industries[4]	Japan	2,372,106	3,311,251	19,468	136,725	14,644	26.01	10.17	82.35	15.88	28
208	174	BOC Group[7]	Britain	2,358,051	3,590,971	127,150	1,584,281	36,936	4.32	24.30	20.59	16.07	28
209	223	Kirin Brewery[18]	Japan	2,350,031	2,536,413	105,705	955,090	10,513	94.23	32.70	180.00	39.43	49
210	208	CSR[4]	Australia	2,331,885	2,181,132	(52,718)	947,819	14,338	29.55	2.61	40.21	(6.53)	20
211	242	Britoil	Britain	2,331,531	3,089,988	243,699	871,046	2,724	(11.57)	–	2.18	–	29
212	256	Mitsubishi Metal[4]	Japan	2,324,810	2,198,892	24,901	157,243	9,316	(5.55)	31.08	36.33	37.90	33
213	197	Canada Packers[4]	Canada	2,311,636	453,011	18,971	227,516	13,500	56.91	46.57	56.68	42.58	20
214	229	SKF	Sweden	2,295,529	2,876,040	64,946	1,121,452	46,532	52.76	45.24	84.47	33.99	34
215	215	International Thomson Org.	Canada	2,284,113	1,950,750	143,810	661,810	19,000	14.58	54.25	32.49	44.05	29
216	225	Toyo Seikan[4]	Japan	2,276,585	1,575,486	79,517	584,518	14,180	128.38	43.94	229.48	51.34	34
217	210	Rank Xerox[11]	Britain	2,271,142	2,344,702	74,556	1,238,110	29,651	–	–	–	–	44
218	221	Hoogovens Groep	Netherlands	2,247,614	2,614,198	83,946	513,544	27,383	–	–	–	–	33
219	118	Gulf Canada	Canada	2,241,717[3]	4,648,552	248,185	1,976,403	20,350	(13.74)	(8.45)	(13.85)	(10.95)	29
220	250	Ricoh[4]	Japan	2,231,139	2,042,100	68,619	765,681	25,000	3.18	13.04	48.81	18.81	44
221	222	Takeda Chemical[4]	Japan	2,226,414	2,699,024	90,523	1,315,068	13,381	82.31	24.29	163.24	30.64	42
222	232	Daihatsu Motor[2]	Japan	2,225,705	1,303,925	27,703	330,688	17,000	(8.51)	6.84	31.85	12.28	40
223	212	Bass[7]	Britain	2,223,334	3,042,501	204,185	1,934,856	71,260	42.79	31.41	65.09	22.75	49
224	219	L'Air Liquide	France	2,215,261[6]	2,765,294[6]	125,682[6]	827,446[6]	25,000[6]	65.02	42.94	109.28	34.95	28
225	226	Nippon Suisan[4]	Japan	2,213,481	1,000,912	12,123	213,625	6,377	28.71	18.01	86.39	24.12	20
226	237	Fletcher Challenge[2]	New Zealand	2,210,359	3,219,822	86,681	499,770	23,423	113.81	113.87	167.63	96.02	32
227	252	Tokyo Sanyo Electric[12]	Japan	2,198,918	2,448,684	65,293	943,998	18,070	17.00	12.00	68.78	17.71	36
228	234	Oji Paper[4]	Japan	2,190,275	2,036,434	74,064	479,450	5,592	46.11	28.34	110.59	34.96	26
229	230	Jacobs Suchard	Switzerland	2,186,994	1,301,806	61,121	656,381	9,260	41.38	16.89	89.81	18.54	20
230	277	Avions Marcel Dassault-Breguet	France	2,175,000	4,162,200	60,678	426,230	16,123	(6.80)	31.60	18.20	24.25	41
231	224	Kanebo[21]	Japan	2,161,589	2,020,537	21,812	51,431	23,198	31.27	31.92	88.82	38.80	22
232	204	Esso Belgium	Belgium	2,152,015[5]	551,775[5]	66,364[5]	131,976[5]	1,211[5]	–	–	–	–	29
233	227	Pioneer Concrete Services[2]	Australia	2,115,820	1,278,958	67,162	444,518	8,570	79.72	24.18	94.09	13.11	29
234	253	Yamaha Motor[21]	Japan	2,091,563	1,490,596	1,830	54,111	9,878	3.48	0.78	49.55	5.94	40
235	244	Ajinomoto[4]	Japan	2,091,265	1,745,976	60,795	751,693	10,586	74.85	28.64	152.37	35.21	20
236	241	Nissan Shatai[4]	Japan	2,082,440[5]	630,840[5]	17,280[5]	203,426[5]	6,889[5]	5.68	7.77	52.35	13.25	40
237	251	Fuji Electric[4]	Japan	2,078,548	2,131,275	38,952	293,777	18,047	(9.66)	7.48	30.57	12.96	36
238	231	Toyobo[21]	Japan	2,074,242	1,570,199	26,235	221,682	15,600	29.79	25.14	86.82	31.62	22
239	265	Rolls-Royce[1]	Britain	2,074,228	1,764,345	99,760	576,555	41,700	–	–	–	–	41
240	246	Moore	Canada	2,067,710	1,321,166	136,683	907,391	27,331	41.39	24.54	41.19	21.14	27
241	●	Coal India[1,4]	India	2,064,759	4,246,787	(65,947)	2,237,033	669,273	–	–	–	–	10
242	235	Hawker Siddeley Group	Britain	2,062,568	1,519,417	107,922	1,187,212	40,800	38.99	17.34	60.69	9.59	45
243	255	Hattori Seiko[4]	Japan	2,051,953	1,436,645	10,846	251,382	7,701	–	–	–	–	46
244	247	MBB	W. Germany	2,041,549	2,630,977	N.A.	N.A.	36,900	–	–	–	–	41
245	281	Tarmac	Britain	2,034,806	1,485,171	119,643	616,581	25,748	231.11	97.35	282.73	84.31	32
246	286	Vauxhall Motors	Britain	2,027,717[3]	918,153	(61,411)	(144,644)	12,467	–	–	–	–	40
247	●	Tate & Lyle[7]	Britain	2,017,908[6]	974,400[6]	32,873[6]	424,381[6]	11,498[6]	–	–	–	–	20
248	239	VIAG[1]	W. Germany	2,010,385[6]	2,543,447[6]	36,739[6]	649,592[6]	21,985[6]	–	–	–	–	33
249	270	Seagram[15]	Canada	2,005,704	5,595,872	383,618	3,079,479	14,300	55.64	73.12	55.41	68.39	49
250	218	Zambia Industrial & Mining[1,4]	Zambia	1,980,326	3,769,283	(24,994)	1,235,101	133,945	–	–	–	–	10

● Not on last year's list.

N.A. Not available.

[21] Figures are for fiscal year ended April 30, 1985.

ANK		COMPANY	COUNTRY	SALES	ASSETS	NET INCOME	STOCKHOLDERS' EQUITY	EMPLOYEES	TOTAL RETURN TO INVESTORS PERCENT				INDUSTRY CODE
									IN LOCAL CURRENCY		IN U.S. DOLLARS		
85	'84			$000	$000	$000	$000		5/31/85-5/31/86	5-YEAR AVERAGE	5/31/85-5/31/86	5-YEAR AVERAGE	
61	240	**Oerlikon-Bührle**	Switzerland	1,975,835	3,765,437	14,751	1,712,767	31,764	38.80	0.36	86.34	1.77	34
62	228	**Lafarge Coppée**	France	1,969,145	2,453,443	85,228	514,835	25,975	130.15	44.62	191.91	36.54	32
63	196	**Koor Industries**	Israel	1,967,137	2,679,585	17,567	450,804	33,700	–	–	–	–	36
64	249	**Mitsui Toatsu Chemicals**[4]	Japan	1,966,556	2,171,227	25,216	62,785	7,466	18.03	21.45	70.10	27.48	28
65	257	**Hitachi Zosen**[4]	Japan	1,964,509	4,182,040	5,593	370,538	20,937	–	–	–	–	37
66	261	**Showa Denko**	Japan	1,929,834	2,875,236	13,109	125,658	5,915	78.90	22.09	157.58	28.42	28
67	236	**Kao Oil**[4]	Japan	1,928,492[5]	1,397,724[5]	5,204[5]	150,687[5]	1,398[5]	37.86	10.61	99.10	16.28	29
68	258	**ACI International**[4]	Australia	1,928,274	1,454,627	40,477	586,008	26,600	–	–	–	–	32
69	292	**News Corp.**[2]	Australia	1,895,940	2,315,020	114,131	908,197	24,094	204.88	103.46	229.66	85.34	27
60	217	**Burmah Oil**	Britain	1,888,830[6]	1,289,373[6]	29,928[6]	503,438[6]	14,500[6]	33.24	26.64	53.90	18.32	29
61	267	**Dainippon Ink & Chemicals**[4]	Japan	1,880,668	1,565,454	25,777	346,673	9,265	55.84	18.24	124.46	24.33	28
62	245	**Johnson Matthey**[4]	Britain	1,876,570	720,588	(206,164)	253,874	9,271	116.16	(4.33)	150.00	(10.65)	33
63	301	**Abitibi-Price**	Canada	1,866,731	1,484,662	73,357	702,324	15,500	39.24	23.41	39.02	20.04	26
64	233	**PETROGAL (Petróleos de Portugal)**[1]	Portugal	1,858,627*	N.A.	N.A.	N.A.	N.A.	–	–	–	–	29
65	285	**Gallaher**	Britain	1,855,064	1,592,880	83,925	577,033	29,394	–	–	–	–	21
66	259	**Hüls**[22]	W. Germany	1,854,967[5]	1,241,806[5]	52,733[5]	439,105[5]	14,711[5]	–	–	–	–	28
67	276	**Sulzer Brothers**	Switzerland	1,843,278	3,270,874	17,067	1,435,437	30,338	59.89	10.69	114.66	12.25	45
68	248	**Lucas Industries**[23]	Britain	1,837,077	1,515,132	3,922	577,099	64,855	105.07	29.75	137.17	21.19	40
69	260	**Mitsubishi Petrochemical**	Japan	1,835,397	2,225,543	40,484	229,958	3,400	35.96	14.87	96.45	20.63	28
70	162	**TBG**[12]	Neth. Antilles	1,835,000	1,147,600	43,000	417,000	13,700	–	–	–	–	34
71	310	**De Beers Consolidated Mines**	South Africa	1,832,587	4,047,241	443,243	3,172,183	20,000	137.69	–	19.94	–	10
72	274	**L'Oréal**	France	1,828,603[6]	1,766,101[6]	86,255[6]	879,121[6]	26,400[6]	25.51	42.41	59.18	34.46	43
73	290	**John Labatt**[21]	Canada	1,828,443	1,132,489	61,536	378,980	13,000	80.37	–	80.10	–	20
74	294	**Vale do Rio Doce**[1]	Brazil	1,821,704	5,540,818	577,954	2,646,749	22,472	–	–	–	–	10
75	297	**Hino Motors**[4]	Japan	1,819,398[5]	925,598[5]	17,359[5]	275,028[5]	8,363[5]	1.64	6.40	46.38	11.93	40
76	280	**Jujo Paper**[4]	Japan	1,811,357	1,832,084	23,341	221,534	6,951	24.45	24.99	79.50	31.32	26
77	287	**Nippon Light Metal**[4]	Japan	1,805,208	1,896,227	(7,304)	118,865	10,220	(12.78)	8.68	25.47	14.36	34
78	321	**Bull**[1]	France	1,792,885	1,947,694	12,267	274,868	26,403	–	–	–	–	44
79	263	**Dome Petroleum**	Canada	1,783,417	5,848,409	5,125	(190,204)	4,400	(51.11)	(41.64)	(51.09)	(43.20)	29
80	266	**Stelco**	Canada	1,782,433	2,076,872	56,848	1,115,708	18,773	34.00	(2.21)	33.77	(4.89)	33
81	271	**Plessey**[4]	Britain	1,777,558	1,536,505	113,727	649,452	37,533	47.22	50.00	70.18	40.15	36
82	320	**Nokia**	Finland	1,776,976	2,160,048	58,083	338,490	27,619	180.58	–	236.66	–	36
83	243	**IMETAL**	France	1,769,505[6]	1,307,906[6]	30,419[6]	392,591[6]	15,000[6]	(42.58)	3.30	(27.18)	(2.46)	10
84	312	**RMC Group**	Britain	1,766,916	1,248,335	54,155	418,905	19,525	72.06	33.79	98.78	24.97	32
85	299	**Tabacalera**[1]	Spain	1,766,713	755,467	7,677	55,054	8,518	271.73	62.87	337.39	48.00	21
86	283	**TDK**[12]	Japan	1,762,647	1,898,491	124,390	1,200,064	14,661	(11.85)	(1.03)	27.16	4.03	36
87	311	**Aisin Seiki**[4]	Japan	1,740,794	1,090,299	37,012	435,347	10,528	49.72	26.07	116.18	32.52	40
88	329	**Sumitomo Metal Mining**[4]	Japan	1,732,532	1,204,980	14,064	218,410	5,758	(3.19)	64.79	39.59	73.17	33
89	289	**Schering**	W. Germany	1,731,254	1,948,707	58,920	729,280	23,884	35.39	22.76	79.44	22.80	42
90	268	**Sasol**[2]	South Africa	1,726,895	2,818,264	273,465	1,199,927	32,700	5.76	–	(46.61)	–	28
91	282	**Glaxo Holdings**[2]	Britain	1,723,515	1,836,574	325,516	1,115,825	25,634	223.52	127.23	273.87	112.25	42
92	275	**Union International**	Britain	1,720,534	N.A.	10,365	N.A.	24,627	91.69	15.85	143.03	9.39	20
93	293	**Sanyo-Kokusaku Pulp**[4]	Japan	1,716,352	1,549,088	28,160	118,434	7,468	19.25	24.17	72.18	30.72	26
94	315	**Standard Elektrik Lorenz**	W. Germany	1,714,946[6,*]	1,083,275[6]	26,109[6]	260,574[6]	33,385[6]	3.22	13.26	36.79	13.30	36
95	317	**Entreprise Minière et Chimique**[1]	France	1,713,227	1,095,660	10,220	45,757	13,317	–	–	–	–	10
96	302	**MacMillan Bloedel**	Canada	1,709,767	1,487,808	31,407	805,220	15,139	56.31	2.57	56.13	(0.22)	26
97	339	**Oki Electric Industry**[4]	Japan	1,709,404	1,681,084	37,118	300,323	18,134	22.07	–	76.11	–	36
98	220	**Iscor**[1,2]	South Africa	1,703,298	2,428,617	9,215	1,432,870	60,737	–	–	–	–	33
99	387	**Continental Gummi-Werke**	W. Germany	1,699,311	1,159,451	26,212	229,250	31,673	77.73	34.74	135.56	34.78	30
00	308	**Sekisui Chemical**[4]	Japan	1,696,978	1,375,363	28,930	304,821	8,781	98.72	29.37	186.70	36.02	28

N.A. Not available.

* FORTUNE estimate.

[22] Name changed from Chemische Werke Hüls on July 1, 1985.

[23] Figures are for fiscal year ended July 31, 1985.

NK '84	COMPANY	COUNTRY	SALES $000	ASSETS $000	NET INCOME $000	STOCK-HOLDERS' EQUITY $000	EMPLOY-EES	TOTAL RETURN TO INVESTORS PERCENT IN LOCAL CURRENCY 5/31/85-5/31/86	 5-YEAR AVERAGE	 IN U.S. DOLLARS 5/31/85-5/31/86	 5-YEAR AVERAGE	INDUSTRY CODE
306	**Nisshin Steel**[4]	Japan	1,675,561	2,166,371	32,979	379,458	9,934	(2.00)	1.03	40.79	6.26	33
213	**Deutsche Babcock**[7]	W. Germany	1,669,348	1,390,027	10,634	184,673	22,432	22.85	0.93	62.81	0.96	34
291	**Bowater Industries**	Britain	1,667,415[6]	1,126,088[6]	9,587[6]	336,685[6]	24,400[6]	18.66	–	36.84	–	26
298	**Nippon Gakki**[21]	Japan	1,666,809	1,276,167	22,660	423,276	17,896	32.52	21.91	91.37	28.17	47
316	**Matra**[1]	France	1,655,702[6]	2,396,714[6]	12,248[6]	207,650[6]	28,000[6]	20.61	17.42	52.97	10.86	41
332	**Reckitt & Colman**	Britain	1,641,413	1,078,880	80,391	556,614	36,500	57.26	32.33	61.73	23.57	20
341	**Kao**[4]	Japan	1,629,829	1,308,028	37,912	455,817	7,703	130.31	46.53	232.25	54.06	43
304	**Daido Steel**[3]	Japan	1,624,092	1,376,171	24,465	234,300	11,138	4.37	8.86	50.76	14.49	33
284	**Ranks Hovis McDougall**[24]	Britain	1,617,967	979,820	42,118	452,492	35,433	45.26	40.17	68.18	30.88	20
262	**Empresa Colombiana de Petról.**[1]	Colombia	1,606,400	2,036,718	(178,677)	N.A.	9,900	–	–	–	–	29
307	**Mobil Oil Française**	France	1,598,569[8,9]	834,037[8]	2,926[8]	240,189[8]	2,112[8]	–	–	–	–	29
328	**CODELCO-CHILE**[1]	Chile	1,597,992	3,757,955	150,444	2,134,138	24,873	–	–	–	–	10
272	**Northern Foods**[4]	Britain	1,597,583	692,531	49,846	258,942	22,264	14.49	15.16	32.13	7.52	20
319	**Heineken**	Netherlands	1,591,208	1,906,492	78,532	798,782	28,410	118.35	73.22	189.89	72.92	49
314	**Nippon Meat Packers**[23]	Japan	1,590,261	785,396	33,220	345,633	11,600	121.40	26.65	219.28	33.14	20
254	**Esso Nederland**	Netherlands	1,584,894[8]	976,167	39,065	119,270	1,594	–	–	–	–	29
305	**SNECMA**[1]	France	1,575,049	3,211,616	10,875	290,859	25,958	–	–	–	–	41
•	**East Asiatic**	Denmark	1,573,907[6]	1,254,128[6]	18,948[6]	165,204[6]	15,969[6]	–	–	–	–	44
324	**Meiji Milk Products**[4]	Japan	1,561,984	604,422	8,319	157,873	7,170	68.63	29.46	142.86	36.08	20
325	**Rowntree Mackintosh**	Britain	1,561,437	1,147,041	57,265	541,008	32,000	9.38	28.87	26.51	20.37	20
326	**Mitsui Mining**[4]	Japan	1,561,083	1,159,247	3,750	67,195	2,234	52.38	13.59	119.27	19.47	10
313	**Domtar**	Canada	1,559,026	1,286,235	80,825	623,382	15,295	86.59	19.33	86.34	16.07	26
309	**Klöckner-Werke**[7]	W. Germany	1,555,725	1,895,321	11,087	281,048	18,458	29.29	11.25	71.39	11.29	33
355	**Grupo Industrial Alfa**	Mexico	1,554,889	2,831,915	(167,944)	144,292	39,446	–	–	–	–	33
318	**Nisshin Flour Milling**[4]	Japan	1,541,141	603,773	24,131	254,215	3,636	29.68	19.62	87.50	25.77	20
386	**Alps Electric**[4]	Japan	1,541,120	1,167,255	74,735	469,466	11,392	–	–	–	–	36
269	**Pilkington Brothers**[4]	Britain	1,540,455	2,437,886	42,187	1,286,305	44,200	49.18	13.65	72.53	6.13	32
342	**Boehringer Ingelheim**	W. Germany	1,537,870	1,888,843	43,134	613,404	22,254	–	–	–	–	42
357	**Shin-Etsu Chemical**[14]	Japan	1,530,790	1,529,279	73,938	359,232	9,734	–	–	–	–	28
303	**Mobil Oil**	Britain	1,516,056[8]	915,925	2,537	301,836	3,144	–	–	–	–	29
345	**Honshu Paper**[4]	Japan	1,504,645	1,903,924	3,071	91,390	6,366	44.57	24.99	108.27	31.29	26
337	**Unitika**[4]	Japan	1,502,950	1,294,773	(459)	72,510	7,594	2.52	21.19	47.75	27.33	22
331	**Daishowa Paper**[4]	Japan	1,502,336	1,804,363	27,578	123,040	6,249	25.78	17.51	81.45	23.43	26
451	**Stora Kopparbergs Bergslags**	Sweden	1,501,224	2,349,531	48,007	341,201	17,718	–	–	–	–	26
344	**Yamazaki Baking**	Japan	1,496,993	1,045,213	34,999	434,951	13,479	150.56	35.74	261.87	42.66	20
334	**Vallourec**	France	1,496,147[6]	828,344[6]	7,792[6]	231,243[6]	25,059[6]	6.56	31.47	35.15	24.11	34
323	**Shiseido**[13]	Japan	1,490,976	1,818,377	59,538	993,622	19,205	71.91	24.76	148.18	31.17	43
338	**Inco**	Canada	1,490,516	3,082,577	52,212	1,265,552	20,828	(2.34)	(6.01)	(2.49)	(8.57)	10
343	**SSAB (Svenskt Stål)**[1]	Sweden	1,486,087	1,535,842	(1,859)	482,112	14,865	–	–	–	–	33
353	**Svenska Cellulosa**	Sweden	1,471,913	2,095,050	76,796	644,752	16,388	115.58	–	160.45	–	26
372	**Hillsdown Holdings**	Britain	1,471,134	643,747	38,997	237,413	19,375	–	–	–	–	20
364	**Holderbank Financière Glaris**	Switzerland	1,467,324[6]	3,693,917[6]	68,053[6]	1,110,285[6]	19,289[6]	–	–	–	–	32
333	**Sankyo**[4]	Japan	1,461,799	1,184,793	39,579	502,012	9,293	8.69	32.62	56.89	39.36	42
335	**Dofasco**	Canada	1,459,521	1,911,670	124,527	1,126,556	12,839	–	–	–	–	33
359	**Sandvik Group**	Sweden	1,459,249	1,817,030	104,332	396,568	24,033	142.24	34.55	192.55	24.13	33
362	**Unión Explosivos Rio Tinto**	Spain	1,457,445[5]	1,238,303[5]	(4,134)[5]	329,191[5]	8,077[5]	–	–	–	–	29
367	**Mitsui Engineering & Shipbldg.**[4]	Japan	1,437,304	1,847,052	20,291	314,633	11,146	(15.92)	(3.71)	20.25	1.09	45
361	**Dunlop Olympic**[2]	Australia	1,434,607	813,212	37,289	317,901	26,916	89.05	43.99	104.35	31.18	30
•	**Whitbread**[9]	Britain	1,434,534	1,892,134	93,411	1,106,946	20,136	33.93	23.46	54.60	15.32	49
322	**Métallurgie Hoboken-Overpelt**[7]	Belgium	1,427,552[5]	779,569[5]	17,156[5]	211,287[5]	6,756[5]	33.11	–	73.95	–	33

Not on last year's list.
Not available.
Figures are for fiscal year ended August 31, 1985.

'84	COMPANY	COUNTRY	SALES $000	ASSETS $000	NET INCOME $000	STOCKHOLDERS' EQUITY $000	EMPLOYEES	TOTAL RETURN TO INVESTORS PERCENT IN LOCAL CURRENCY 5/31/85-5/31/86	 5-YEAR AVERAGE	 IN U.S. DOLLARS 5/31/85-5/31/86	 5-YEAR AVERAGE	INDUSTRY CODE
330	**Babcock International**	Britain	1,4[illegible]3,750	1,000,928	30,527	261,924	26,514	18.50	18.84	36.86	11.01	45
348	**Procordia**[1,25]	Sweden	1,419,050	1,688,185	45,195	309,703	25,499	—	—	—	—	21
264	**Metal Box**[4]	Britain	1,418,916	909,325	35,156	417,274	28,448	82.08	38.71	110.59	29.58	34
354	**Konishiroku Photo Industry**[26]	Japan	1,418,295	1,505,303	39,131	556,791	9,900	18.57	5.67	71.23	11.05	28
350	**Sumitomo Heavy Industries**[4]	Japan	1,396,681	1,727,781	2,891	191,506	8,500	(2.56)	2.70	40.00	7.80	45
375	**Nichirei**[16,27]	Japan	1,391,464	540,318	9,733	136,974	4,680	—	—	—	—	20
391	**Racal Electronics**[4]	Britain	1,389,876	1,468,431	96,257	538,802	33,167	6.05	19.33	22.62	11.46	36
358	**Pioneer Electronic**[7]	Japan	1,374,242	1,301,099	(9,883)	723,210	12,522	33.82	3.73	93.11	9.03	36
356	**Onoda Cement**[4]	Japan	1,369,049	1,576,741	22,846	246,466	6,756	23.89	28.14	78.66	34.73	32
173	**Cockerill Sambre**[1]	Belgium	1,346,838	2,015,604	(102,091)	529,391	17,008	(37.34)	—	(18.18)	—	33
365	**Mitsui Petrochemical**[4]	Japan	1,344,975	1,524,566	29,319	186,434	4,913	87.20	37.09	170.00	44.18	28
346	**Coats Patons**	Britain	1,340,928*	1,271,600*	76,439*	585,225*	41,000	87.24	39.69	116.40	30.49	22
398	**Mitsubishi Gas Chemical**[4]	Japan	1,340,026	1,181,753	23,488	258,259	5,027	17.46	11.72	69.87	17.56	28
408	**Nixdorf Computer**	W. Germany	1,333,442[6]	1,710,482[6]	57,031[6]	876,503[6]	23,290[6]	32.67	—	75.83	—	44
435	**Kyocera**[4]	Japan	1,329,679	1,511,185	155,873	1,141,499	17,133	—	—	—	—	36
347	**Union Laitière Normande**	France	1,318,648	509,499	(1,172)	39,111	6,131	—	—	—	—	20
383	**Béghin-Say**	France	1,317,505[5]	1,455,834[5]	5,934[5]	278,960[5]	7,700[5]	79.02	25.45	127.03	18.44	20
327	**Massey-Ferguson**[15]	Canada	1,293,600	1,449,200	7,200	310,400	20,262	59.65	(0.43)	59.42	(3.14)	45
377	**TI Group**	Britain	1,291,826	835,210	16,843	318,622	25,000	111.21	32.29	143.94	23.60	34
389	**Rauma-Repola**	Finland	1,288,831	1,863,157	42,813	222,317	17,311	(2.08)	—	17.33	—	26
381	**Hachette**	France	1,288,299	848,975	18,700	245,770	12,500	52.83	59.58	93.83	50.66	27
379	**Valeo**	France	1,283,483[6]	1,085,893[6]	(13,434)[6]	190,284[6]	28,500[6]	129.16	27.43	190.67	20.31	40
370	**Mitsui Mining & Smelting**[4]	Japan	1,283,329	1,159,247	20,946	93,665	7,689	(30.50)	26.69	.00	33.07	33
378	**Koninklijke Wessanen**	Netherlands	1,278,964	473,737	18,758	201,151	4,174	—	—	—	—	20
399	**Toyota Auto Body**[4]	Japan	1,274,220[8]	352,283[8]	11,701[8]	97,853[8]	6,982[8]	2.64	14.62	47.92	20.45	40
384	**Morinaga Milk Industry**[4]	Japan	1,271,738	551,355	5,670	121,853	5,150	27.67	23.74	84.12	30.12	20
349	**Empresa Nacional del Petróleo**[1]	Chile	1,271,341	964,600	1,126	488,661	4,087	—	—	—	—	29
369	**Mitsubishi Rayon**[4]	Japan	1,269,970	1,223,510	22,645	229,116	6,000	6.82	22.82	54.27	28.98	22
394	**Itoham Foods**[7]	Japan	1,268,886	533,085	14,272	260,131	5,715	—	—	—	—	20
●	**Nobel Industries**	Sweden	1,265,050	1,474,099	8,063	68,568	15,857	—	—	—	—	28
385	**Consolidated-Bathurst**	Canada	1,264,695	1,331,953	56,785	585,969	14,390	48.76	43.17	48.53	39.27	26
402	**Yokohama Rubber**	Japan	1,263,971	1,319,481	17,877	119,006	10,775	19.94	13.71	72.44	19.46	30
278	**Premier Group**[4]	South Africa	1,259,378	1,156,753	56,818	666,199	33,017	—	—	—	—	20
412	**Ford Brasil**	Brazil	1,256,926	660,322	47,076	153,983	22,263	—	—	—	—	40
415	**Pearson**	Britain	1,256,845	1,231,429	89,525	562,394	30,158	164.01	63.35	205.30	52.58	27
373	**Meiji Seika**[4]	Japan	1,256,819	727,382	14,841	356,060	5,353	59.02	25.89	129.66	32.35	20
371	**Mitsubishi Mining & Cement**[4]	Japan	1,251,476	1,302,833	18,006	251,191	5,429	—	—	—	—	32
296	**KHD (Klöckner-Humboldt-Deutz)**	W. Germany	1,247,084	1,363,121	20,022	377,965	23,643	—	—	—	—	45
400	**Swedish Match**	Sweden	1,245,241	1,083,960	20,216	208,845	25,300	3.50	18.77	25.01	9.57	26
409	**Wellcome Foundation**[24]	Britain	1,235,950	1,239,937	79,802	610,093	18,342	—	—	—	—	42
376	**Oljekonsumenternas Förbund**	Sweden	1,228,848	667,630	2,579	67,974	5,059	—	—	—	—	29
374	**PETROPERU**[1]	Peru	1,227,857	968,260	38,501	30,521	11,069	—	—	—	—	29
300	**Blue Circle Industries**	Britain	1,227,176	2,421,820	102,999	1,374,484	17,127	32.64	12.69	53.22	5.24	32
427	**SEAT**[1]	Spain	1,224,958	1,675,011	(214,991)	220,047	22,988	—	—	—	—	40
397	**SNIA BPD**	Italy	1,217,588	1,802,845	49,424	235,691	14,527	—	—	—	—	28
416	**Bosch-Siemens Hausgeräte**	W. Germany	1,211,131	624,528	N.A.	175,725*	15,100	—	—	—	—	36
382	**Kuraray**[4]	Japan	1,208,950	1,214,195	6,743	108,709	8,330	70.29	65.69	145.49	74.37	28
426	**Zahnradfabrik Friedrichshafen**	W. Germany	1,208,234	1,178,330	15,896	27,045	22,600	7.92	—	43.03	—	40
460	**Omron Tateisi Electronics**[4]	Japan	1,202,223	1,015,108	44,614	425,155	12,198	—	—	—	—	36
417	**Lion**	Japan	1,201,942	862,467	18,933	290,427	4,628	136.95	33.09	241.25	39.87	43

● Not on last year's list.
A. Not available.
* FORTUNE estimate.
[25] Name changed from Statsforetag Group on January 1, 1985.
[26] Figures are for fiscal year ended April 20, 1985.
[27] Name changed from Nippon Reizo Kabushiki on February 1, 1985

RANK		COMPANY	COUNTRY	SALES	ASSETS	NET INCOME	STOCKHOLDERS' EQUITY	EMPLOYEES	TOTAL RETURN TO INVESTORS PERCENT				INDUSTRY CODE
									IN LOCAL CURRENCY		IN U.S. DOLLARS		
'85	'84			$000	$000	$000	$000		5/31/85-5/31/86	5-YEAR AVERAGE	5/31/85-5/31/86	5-YEAR AVERAGE	
401	360	**Redland**[4]	Britain	1,198,815	882,875	62,276	352,878	11,953	48.56	24.62	72.01	16.44	32
402	396	**PETRONOR**	Spain	1,192,636[8]	989,051[8]	16,452[8]	259,300[8]	715[8]	—	—	—	—	29
403	439	**Esselte**	Sweden	1,187,661	1,076,964	21,134	200,739	17,177	60.74	41.46	94.13	30.50	44
404	388	**Philippine National Oil**[1]	Philippines	1,183,431	1,195,810	45,685	306,188	7,165	—	—	—	—	29
405	438	**Alfa-Laval**	Sweden	1,178,739	1,400,251	61,751	353,347	15,394	38.91	35.88	67.77	25.35	45
406	392	**Molson**[4]	Canada	1,178,606	756,053	34,283	294,092	10,900	59.28	40.85	59.07	37.02	49
407	401	**Gulf Oil Great Britain**	Britain	1,173,020	247,566	40,987	176,760	753	—	—	—	—	29
408	393	**Distillers**[4]	Britain	1,170,440	2,107,009	157,950	1,281,979	13,900	136.94	32.74	173.64	23.97	49
409	424	**Atlas Copco**	Sweden	1,169,026	1,145,149	45,578	348,871	16,659	104.13	36.31	146.48	25.75	45
410	444	**General Motors do Brasil**	Brazil	1,164,636*	629,184*	N.A.	N.A.	23,536*	—	—	—	—	40
411	433	**Toyoda Automatic Loom Works**[4]	Japan	1,161,146[5]	800,096[5]	40,885[5]	485,303[5]	6,452[5]	34.44	19.40	94.18	25.47	40
412	413	**Doosan**	South Korea	1,160,326	1,168,077	15,896	224,546	14,288	—	—	—	—	49
413	395	**Bharat Heavy Electricals**[1,4]	India	1,157,922	1,965,517	61,566	404,416	74,464	—	—	—	—	45
414	403	**Northern Engineering Industries**	Britain	1,153,436	1,020,713	28,788	249,820	28,886	33.96	13.32	54.81	5.75	45
415	448	**Nissan Diesel Motor**[4]	Japan	1,148,499[5]	949,426[5]	3,975[5]	159,406[5]	6,467[5]	(5.61)	4.86	36.36	10.24	40
416	414	**Ford España**	Spain	1,146,688[6,8]	735,731[8]	57,497[8]	129,955[8]	8,578[8]	—	—	—	—	40
417	404	**Nichiro Gyogyo**[10]	Japan	1,142,872	707,224	(384)	49,629	3,490	—	—	—	—	20
418	•	**Source Perrier**[11]	France	1,139,926[6]	911,576[6]	26,098[6]	116,577[6]	12,000[6]	33.32	43.67	69.08	35.64	20
419	390	**Consolidated Gold Fields**[4]	Britain	1,138,879	1,985,071	94,469	889,281	13,970	(13.42)	2.59	.00	(4.20)	32
420	432	**Indústrias Votorantim**	Brazil	1,137,287	1,463,397	251,850	1,132,453	57,775	—	—	—	—	10
421	436	**Kanto Auto Works**[4]	Japan	1,135,909[5]	292,028[5]	9,286[5]	73,908[5]	5,682[5]	14.12	17.05	64.25	22.95	40
422	441	**Freudenberg**	W. Germany	1,135,907[6]	878,264[6]	N.A.[6]	315,827[6]	23,510[6]	—	—	—	—	40
423	•	**AGA**	Sweden	1,133,358	1,645,809	39,153	407,789	14,441	373.15	69.68	471.44	56.55	28
424	351	**Fuji Kosan**[4]	Japan	1,130,943[5]	742,291[5]	16,045[5]	(233,876)[5]	509[5]	49.35	(0.89)	114.29	4.18	29
425	340	**Fed. Volksbeleggings Beperk**[4]	South Africa	1,130,851	712,617	(43,612)	142,139	49,000	(27.24)	—	(63.46)	—	20
426	421	**KF Industri**	Sweden	1,128,490	878,909	12,126	135,129	14,835	—	—	—	—	26
427	•	**Cookson Group**	Britain	1,123,659[6]	688,831[6]	55,451[6]	366,596[6]	6,513[6]	209.68	83.93	258.19	71.74	33
428	410	**Rütgerswerke**	W. Germany	1,119,039	618,528	9,774	162,725	11,388	11.99	11.42	48.43	11.46	28
429	437	**Merck**	W. Germany	1,116,087[6]	N.A.[6]	N.A.[6]	N.A.[6]	20,984[6]	—	—	—	—	28
430	487	**Valores Industriales**	Mexico	1,113,903	1,365,784	56,561	169,206	32,937	69.57	—	(17.65)	—	49
431	454	**Hispanoil**[1]	Spain	1,113,470	1,140,359	15,145	422,799	782	—	—	—	—	29
432	419	**ENSIDESA**[1]	Spain	1,112,325	2,063,672	(104,209)	550,000	19,765	—	—	—	—	33
433	405	**Kyowa Hakko Kogyo**	Japan	1,109,564	1,312,524	15,998	444,544	6,117	130.76	43.02	232.72	50.25	42
434	458	**ARBED**	Luxembourg	1,108,042[6]	1,502,226[6]	19,032[6]	492,256[6]	13,706[6]	82.95	—	139.10	—	33
435	•	**Kemira**[1]	Finland	1,102,374	1,339,526	11,771	107,865	11,961	—	—	—	—	28
436	449	**Nippon Seiko**[21]	Japan	1,097,397	1,343,189	41,698	484,302	10,788	9.59	11.11	57.84	16.75	45
437	425	**Canadian General Electric**	Canada	1,093,564[9]	781,635	38,849	384,877	11,605	58.22	28.30	57.99	24.81	36
438	411	**Yoshida Kogyo**[4]	Japan	1,091,320	1,932,761	61,302	517,012	14,230	—	—	—	—	32
439	368	**British Shipbuilders**[1,4]	Britain	1,087,248	909,694	(134,066)	395,844	40,785	—	—	—	—	37
440	•	**Chrysler de Mexico**	Mexico	1,080,950	577,603	36,640	184,099	10,483	—	—	—	—	40
441	418	**Rheinische Braunkohlenwerke**	W. Germany	1,078,733[5]	2,884,621[5]	442[5]	378,913[5]	16,975[5]	—	—	—	—	10
442	•	**Guinness**[7,28]	Britain	1,075,507	1,420,754	63,017	373,112	19,700	16.46	39.10	34.63	29.94	49
443	407	**Enso-Gutzeit**[1]	Finland	1,074,720	1,917,454	8,847	499,258	15,593	—	—	—	—	26
444	352	**AECI**	South Africa	1,064,928	769,072	52,039	322,489	26,600	43.26	—	(27.57)	—	28
445	•	**Superfos**	Denmark	1,063,387	723,024	1,017	105,368	5,688	—	—	—	—	28
446	456	**Douwe Egberts**[2]	Netherlands	1,062,139	652,311	38,118	258,868	8,068	—	—	—	—	20
447	423	**Arla**[2]	Sweden	1,055,810	446,325	1,810	73,778	7,420	—	—	—	—	20
448	453	**Citizen Watch**[4]	Japan	1,052,904	1,016,462	27,083	358,534	10,955	38.16	17.79	99.55	23.85	38
449	•	**SIDOR**[1]	Venezuela	1,050,432	3,565,691	(57,422)	1,672,409	17,009	—	—	—	—	33
450	469	**NTN Toyo Bearing**[29]	Japan	1,050,228	1,179,142	40,783	392,484	8,643	3.52	11.72	49.57	17.44	40

• Not on last year's list.

N.A. Not available.

* FORTUNE estimate.

[28] Name changed from Arthur Guinness on May 1, 1985.

[29] Figures are for fiscal year ended March 20, 1985.

ANK		COMPANY	COUNTRY	SALES	ASSETS	NET INCOME	STOCKHOLDERS' EQUITY	EMPLOYEES	TOTAL RETURN TO INVESTORS PERCENT				INDUSTRY CODE
'85	'84			$000	$000	$000	$000		IN LOCAL CURRENCY 5/31/85-5/31/86	IN LOCAL CURRENCY 5-YEAR AVERAGE	IN U.S. DOLLARS 5/31/85-5/31/86	IN U.S. DOLLARS 5-YEAR AVERAGE	
51	467	**Prouvost**	France	1,046,188	811,455	7,646	145,055	18,048	6.85	59.99	35.53	51.06	22
52	462	**FAG Kugelfischer Georg Schäfer**	W. Germany	1,039,893	1,062,028	35,168	268,723	29,792	–	–	–	–	34
53	●	**ISAB**	Italy	1,038,497	390,541	17,373	24,859	772	–	–	–	–	29
54	440	**PWA**	W. Germany	1,034,329[6]	660,854[6]	11,917[6]	115,280[6]	9,577[6]	–	–	–	–	26
55	●	**GECHEM**[30]	Belgium	1,032,358	926,648	7,420	151,665	12,165	(21.94)	–	2.00	–	28
56	434	**Toyo Soda Manufacturing**[4]	Japan	1,030,595	1,294,960	47,034	180,765	5,270	6.79	29.18	53.71	35.91	28
57	431	**Lesieur**	France	1,029,416	619,839	(866)	155,911	6,326	55.73	21.19	97.50	14.42	20
58	479	**Porsche**[32]	W. Germany	1,028,966	514,390	39,011	145,490	7,915	(11.09)	–	17.83	–	40
59	429	**Burns Philp**[3]	Australia	1,008,594	544,717	27,683	242,147	13,849	99.39	25.06	115.69	13.94	32
60	471	**Rengo**[4]	Japan	1,004,887	582,478	8,180	123,896	4,400	21.80	18.37	75.81	24.38	26
61	486	**Minolta Camera**[4]	Japan	1,002,472	1,008,243	27,570	238,367	9,660	–	–	–	–	44
62	406	**Suncor**	Canada	1,001,525	1,708,974	(7,321)	832,320	5,430	–	–	–	–	29
63	430	**Heraeus Holding**[31]	W. Germany	999,792	677,764	28,403	299,867	7,241	–	–	–	–	33
64	422	**Amatil**[11]	Australia	995,558	613,527	32,599	296,301	11,882	78.46	49.39	93.24	36.09	21
65	457	**IMI**	Britain	992,676	786,369	48,325	347,522	20,291	67.61	30.45	93.92	21.79	34
66	463	**Shionogi**[4]	Japan	986,873	919,693	32,663	520,649	8,313	36.75	21.47	97.35	27.61	42
67	468	**USIMINAS**[1]	Brazil	985,987[8]	1,751,242[8]	(70,784)[8]	660,141[8]	14,798[8]	–	–	–	–	33
68	445	**China Steel**[1,2]	Taiwan	984,701	2,891,725	116,617	1,843,593	8,440	–	–	–	–	33
69	446	**Denki Kagaku Kogyo**[4]	Japan	984,584	1,146,275	25,097	210,578	5,160	–	–	–	–	28
470	489	**Siderúrgica Nacional**[1]	Brazil	984,498[8]	3,574,966[8]	(771,792)[8]	949,858[8]	20,839[8]	–	–	–	–	33
471	478	**Ivaco**	Canada	982,981	916,295	25,730	372,260	12,000	–	–	–	–	34
472	452	**Valmet**[1]	Finland	981,726	1,042,923	17,312	167,734	17,143	–	–	–	–	45
473	477	**Nisshinbo**[32]	Japan	978,569	645,925	30,659	369,780	7,696	33.00	25.26	91.83	31.73	22
474	461	**Sumitomo Rubber**	Japan	975,344	1,052,404	8,555	89,843	6,900	–	–	–	–	30
475	459	**Nihon Cement**[21]	Japan	969,403	1,443,759	(7,767)	150,963	5,744	84.78	24.89	166.92	31.28	32
476	●	**Jaguar**	Britain	967,153	676,549	113,493	242,904	10,839	–	–	–	–	40
477	480	**Casio Computer**[29]	Japan	961,201	916,283	37,339	352,773	6,770	–	–	–	–	44
478	495	**Daikin**[12]	Japan	960,967	943,375	23,358	233,206	7,000	–	–	–	–	45
479	493	**Jefferson Smurfit Group**[16]	Ireland	950,548	688,551	31,540	223,839	11,991	198.50	42.95	284.44	37.79	26
480	464	**GECAMINES**[1]	Zaire	949,997	1,818,321	43,750	1,290,065	36,115	–	–	–	–	10
481	492	**Syntex**[23]	Panama	948,549	1,226,343	150,001	697,811	10,700	–	–	–	–	42
482	466	**Elkem**	Norway	948,427	1,014,512	5,000	159,367	8,738	(20.00)	18.19	(9.35)	11.09	33
483	●	**Pernod Ricard**	France	947,795	1,113,816	47,276	492,519	10,618	40.15	62.87	77.76	53.77	49
484	470	**Royal Pkg. Industries Van Leer**	Netherlands	947,548	609,475	28,220	247,924	14,062	–	–	–	–	34
485	438	**Grundig**[4]	W. Germany	946,260	765,007	(61,846)	229,945	22,639	–	–	–	–	36
486	476	**Austria Tabakwerke**[1]	Austria	944,445	527,569	8,238	197,301	2,147	–	–	–	–	21
487	455	**Showa Sangyo**[14]	Japan	938,347	494,697	1,809	115,625	2,254	41.18	13.31	103.03	19.06	20
488	443	**Vaal Reefs Exploration & Mining**	South Africa	935,163	542,773	239,532	538,109	40,055	22.91	–	(37.94)	–	10
489	490	**MIM Holdings**[3]	Australia	928,156	2,570,482	(14,168)	930,030	7,700	(16.08)	(11.25)	(9.22)	(19.14)	10
490	●	**Butano**[1]	Spain	924,489	403,507	32,929	154,041	3,195	–	–	–	–	29
491	●	**Toyo Tire & Rubber**[4]	Japan	919,679	679,016	5,331	34,227	3,458	6.85	13.64	53.62	19.50	30
492	483	**Linde**	W. Germany	919,554[6]	1,247,052[6]	25,483[6]	328,704[6]	14,362[6]	94.62	25.74	157.93	25.78	45
493	496	**Kanegafuchi**[4]	Japan	914,602	696,689	23,816	251,932	4,500	39.80	28.82	101.64	35.43	28
494	●	**Toyo Sash**[7]	Japan	911,557	927,788	14,497	288,485	10,900	–	–	–	–	34
495	492	**Daicel Chemical Industries**[4]	Japan	910,074	857,271	28,672	240,359	4,150	27.15	36.93	83.63	43.77	28
496	475	**Carl-Zeiss-Stiftung**[7]	W. Germany	909,070	935,418	12,007	134,020	24,827	–	–	–	–	38
497	●	**Dillinger Hüttenwerke**	W. Germany	908,966[8]	528,477[8]	219[8]	175,106[8]	5,993[8]	–	–	–	–	33
498	497	**Kymmene-Strömberg**	Finland	905,600	1,384,614	8,350	334,946	14,739	171.22	–	225.40	–	26
499	465	**Ebara**[21]	Japan	904,769	858,302	12,874	240,962	6,197	62.76	23.97	134.48	30.27	45
500	●	**Israel Aircraft Industries**[1,4]	Israel	901,000	1,020,965	19,806	334,873	22,000	–	–	–	–	41
		TOTALS		1,940,515,010	1,786,288,629	48,649,235	544,076,185	18,466,875					

● Not on last year's list.

[30] Name changed from PRB on October 25, 1985.

[31] Name changed from W.C. Heraeus on December 14, 1985.

[32] Figures are for fiscal year ended April 25, 1985.

CHANGES IN SALES

THE TEN BIGGEST INCREASES

	Sales rank	
VÖEST-Alpine	29	260.6%
George Weston Holdings	39	169.3
Charbonnages de France	114	161.5
Source Perrier	418	137.6
Mobil Oil Italiana	203	81.2
GECHEM	455	78.6
Showa Shell Sekiyu	60	68.2
AGA	423	66.6
Türkiye Petrolleri	63	58.9
Cookson Group	427	57.3

THE TEN BIGGEST DECREASES

National Coal Board	192	63.5%
Cockerill Sambre	360	55.0
Gulf Canada	219	45.4
TBG	270	41.7
Texaco Canada	166	35.1
YPF (Yacimientos Petróliferos)	103	31.6
Ultramar	167	29.8
Premier Group	383	29.4
Deutsche Babcock	302	28.7
Canada Development Corp.	205	26.1

THE INDUSTRY MEDIANS

	Increases
Computers (includes office equipment)	14.1%
Motor vehicles and parts	8.0
Electronics	7.4
Aerospace	5.4
Rubber products	5.3
Soaps, cosmetics	4.1
Forest products	2.8
Publishing, printing	2.5
Chemicals	2.3
Beverages	2.0
Pharmaceuticals	1.0
Food	0.6
Metal products	0.6
	Decreases
Petroleum refining	4.9%
Textiles	3.6
Metals	1.6
Building materials	1.3
Mining, crude-oil production	0.5
Industrial and farm equipment	0.4
Tobacco	0.2

CHANGES IN PROFITS

THE TEN BIGGEST INCREASES*

	Sales rank	
Nippon Steel	33	5,621.8%
Kawasaki Steel	98	2,592.0
ISAB	453	1,977.5
Klöckner-Werke	323	1,388.2
Nobel Industries	380	1,350.8
Taiyo Fishery	104	695.8
Northern Foods	313	642.7
Procordia	352	544.9
Jujo Paper	276	385.8
Kemira	435	383.5

THE TEN BIGGEST DECREASES*

Empresa Nacional del Petróleo	377	98.1%
Esso (France)	159	97.7
Dillinger Huttenwerke	497	97.5
Daikyo Oil	115	89.8
Sumitomo Heavy Industries	355	88.9
Elkem	482	85.0
Iscor	298	84.3
General Sekiyu	176	83.6
Lucas Industries	268	76.4
Showa Denko	256	70.5

THE INDUSTRY MEDIANS

	Increases
Rubber products	81.7%
Aerospace	57.8
Forest products	30.7
Industrial and farm equipment	26.9
Metals	25.1
Computers (includes office equipment)	21.4
Building materials	15.3
Soaps, cosmetics	15.1
Chemicals	13.1
Motor vehicles and parts	10.9
Textiles	9.6
Electronics	8.2
Beverages	6.8
Pharmaceuticals	6.5
Metal products	2.5
Publishing, printing	2.4
Food	1.8
	Decreases
Tobacco	4.1%
Petroleum refining	4.0
Mining, crude-oil production	3.3

* Listings exclude money losers.

THE MONEY LOSERS

	Sales rank	Loss $000
Renault*	30	1,215,915
Siderúrgica Nacional*	470	771,792
YPF (Yacimientos Petróliferos)*	103	697,129
IRI	3	664,000
Sacilor*	87	585,129
British Steel*	105	516,038
Petro-Canada	136	505,903
Usinor*	123	381,747
ALUSUISSE (Swiss Aluminium)	156	281,328
EFIM*	171	238,806
SEAT*	394	214,991
Johnson Matthey*	262	206,164
VÖEST-Alpine	29	189,247
Noranda*	194	185,863
Alcan Aluminium	81	180,000
BL	112	178,864
Empresa Colombiana de Petról.	310	178,677
Charbonnages de France*	114	170,729
Grupo Industrial Alfa*	324	167,944
British Shipbuilders*	439	134,066
ENSIDESA*	432	104,209
Cockerill Sambre	360	102,091
Ford-Werke*	100	85,274
USIMINAS	467	70,784
STC	190	69,702
Coal India	241	65,947
Grundig*	485	61,846
Vauxhall Motors*	246	61,411
SIDOR	449	57,422
CSR	210	52,718
Adam Opel	96	45,936
Fed. Volksbeleggings Beperk	425	43,612
Mitsubishi Oil*	116	36,074
Esso Italiana	165	28,770
Zambia Industrial & Mining*	250	24,994
Barlow Rand	79	21,569
Veba Oel*	65	20,302
MIM Holdings	489	14,168
Valeo*	372	13,434
Pioneer Electronic	358	9,883
Nihon Cement*	475	7,767
Suncor	462	7,321
Nippon Light Metal	277	7,304
Saarbergwerke*	195	5,146
Unión Explosivos Rio Tinto*	346	4,134
Mobil Oil Italiana*	203	3,809
Preussag	122	1,985
SSAB (Svenskt Stål)	339	1,859
Union Laitière Normande	366	1,172
Lesieur	457	866
Unitika	332	459
Nichiro Gyogyo	417	384

* Also lost money in 1984.

ARRIVALS & DEPARTURES

NEWCOMERS AND RETURNEES*

	1985 sales rank
AGA (1982: 487)	423
Butano (1983: 469)	490
Chrysler de Mexico (1981: 363)	440
Coal India	241
Cookson Group	427
Dillinger Huttenwerke (1982: 482)	497
East Asiatic	318
Feldmühle Nobel	155
GECHEM (1977: 494)	455
Guinness (1983: 452)	442
ISAB (Industria Siliciana Asfalti Bitumi) (1983: 459)	453
Israel Aircraft Industries	500
Jaguar	476
Kemira (1975: 411)	435
Nobel Industries (1980: 463)	380
Pernod Ricard (1982: 491)	483
Pertamina (1978: 147)	35
Siderúrgica del Orinoco	449
Source Perrier (1976: 388)	418
Superfos (1979: 499)	445
Toyo Sash	494
Toyo Tire & Rubber (1983: 488)	491
Tate & Lyle (1979: 156)	247
Whitbread (1983: 352)	349

DEPARTURES

	1984 sales rank
Alcoa of Australia	447
Anomina Petroli Italiana	481
Brooke Bond Group[1]	288
Chemie Linz	273
Chevron Oil Italiana	473
Chiyoda Chemical Eng. & Const.	363
Commodore International	380
Driefontein Consolidated	472
Dunlop Holdings[2]	238
Du Pont Canada	488
Flick Group[3]	131
Fujisawa Pharmaceutical	485
Genstar	336
John Brown	491
Motor Oil (Hellas) Corinth Refineries	420
NOVA	176
Nan Ya Plastics	474
Nippon Sheet Glass	498
Norddeutsche Affinerie	500
Pakistan State Oil	484
Prima Meat Packers	494
Sumitomo Light Metal Industries	499
Wärtsilä	442
Zanussi Group	450

[1] Acquired by Unilever (No. 6) on October 10, 1984.
[2] Acquired by BTR (No. 95) on March 28, 1985.
[3] Company no longer operates. Some assets were sold to Feldmühle Nobel (No. 155).
* Figures in parentheses indicate year and sales rank the last time the company was listed.

THE 500 BY COUNTRY

Rank breakdown:	1-100	101-200	201-300	301-400	401-500	Total	Largest Company	$000	Rank
Argentina	0	1	0	0	0	1	YPF (Yacimientos Petróliferos)	4,703,246	103
Australia	1	0	4	1	3	9	Broken Hill Proprietary	5,631,217	84
Austria	1	1	0	0	1	3	VÖEST-Alpine	13,632,904	29
Belgium	1	1	1	2	1	6	Petrofina	9,834,332	44
Brazil	1	0	1	1	4	7	Petrobrás (Petróleo Brasileiro)	16,046,448	18
Britain	10	23	17	17	10	77	British Petroleum	53,100,765	2
Canada	6	6	11	5	4	32	General Motors of Canada	13,905,168	26
Chile	0	0	0	2	0	2	CODELCO-CHILE	1,597,992	312
Colombia	0	0	0	1	0	1	Empresa Colombiana de Petról.	1,606,400	310
Denmark	0	0	0	1	1	2	East Asiatic	1,573,907	318
Finland	1	0	1	1	4	7	Neste	5,684,359	82
France	10	7	7	8	4	36	Elf-Aquitaine	20,105,843	10
India	1	2	1	0	1	5	Indian Oil	8,279,652	51
Indonesia	1	0	0	0	0	1	Pertamina	11,579,413	35
Ireland	0	0	0	0	1	1	Jefferson Smurfit Group	950,548	479
Israel	0	0	1	0	1	2	Koor Industries	1,967,137	253
Italy	4	3	1	1	1	10	IRI	26,758,000	3
Japan	24	28	33	36	26	147	Toyota Motor	26,040,288	4
Kuwait	1	0	0	0	0	1	Kuwait Petroleum	13,640,512	28
Luxembourg	0	0	0	0	1	1	ARBED	1,108,042	434
Mexico	1	0	0	1	2	4	Pemex (Petróleos Mexicanos)	20,380,539	9
Netherlands	3	0	1	3	2	9	Philips' Gloeilampenfabrieken	18,079,488	13
Netherlands Antilles	1	0	1	0	0	2	Schlumberger	6,119,447	75
Netherlands/Britain	2	0	0	0	0	2	Royal Dutch/Shell Group	81,743,514	1
New Zealand	0	0	1	0	0	1	Fletcher Challenge	2,210,359	226
Norway	1	1	0	0	1	3	Statoil	5,979,417	78
Panama	0	0	0	0	1	1	Syntex	948,549	481
Peru	0	0	0	1	0	1	PETROPERU	1,227,857	392
Philippines	0	0	0	0	1	1	Philippine National Oil	1,183,431	404
Portugal	0	0	1	0	0	1	PETROGAL (Petróleos de Portugal)	1,858,627	264
South Africa	1	0	3	1	3	8	Barlow Rand	5,861,085	79
South Korea	5	2	2	0	1	10	Samsung Group	14,193,095	23
Spain	1	1	1	2	5	10	ENPETROL	4,930,725	99
Sweden	1	4	1	8	6	20	Volvo	10,014.445	42
Switzerland	3	5	3	1	0	12	Nestlé	17,158,824	17
Taiwan	1	0	0	0	1	2	Chinese Petroleum	5,520,716	85
Turkey	1	2	0	0	0	3	Türkiye Petrolleri	6,643,699	63
Venezuela	1	0	0	0	1	2	Petróleos de Venezuela	11,846,756	34
West Germany	16	13	7	7	12	55	Siemens	17,833,563	14
Zaire	0	0	0	0	1	1	GECAMINES	949,997	480
Zambia	0	0	1	0	0	1	Zambia Industrial & Mining	1,980,326	250

TOTAL RETURN TO INVESTORS, YEAR ENDED MAY 31, 1986, IN U.S. DOLLARS

THE TEN HIGHEST

	Sales rank	
AGA	423	471.44%
Fiat	22	439.64
Tabacalera	285	337.39
Michelin	91	331.20
Jefferson Smurfit Group	479	284.44
Tarmac	245	282.73
ASEA	107	277.54
Glaxo Holdings	291	273.87
Yamazaki Baking	335	261.87
Cookson Group	427	258.19

THE FIVE LOWEST

Fed. Volksbeleggings Beperk	425	-63.46%
Dome Petroleum	279	-51.09
Sasol	290	-46.61
Vaal Reefs Exploration & Mining	488	-37.94
Canada Development Corp.	205	-32.00

THE INDUSTRY MEDIANS

Soaps, cosmetics	190.22%
Publishing, printing	160.22
Pharmaceuticals	110.56
Building materials	105.90
Rubber products	103.36
Tobacco	93.24
Metal products	90.13
Textiles	87.82
Chemicals	83.46
Food	81.73
Forest products	77.66
Computers (includes office equipment)	65.45
Beverages	65.09
Industrial and farm equipment	60.69
Electronics	54.86
Metals	53.61
Motor vehicles and parts	49.57
Petroleum refining	48.18
Mining, crude-oil production	-2.49
All Industries	*72.18*

COUNTRY MEDIANS

Sweden	144.23%
Australia	99.22
Switzerland	89.81
W. Germany	79.80
Japan	78.24
France	72.46
Belgium	71.41
Britain	66.64
Canada	32.80
South Africa	-32.75

TOTAL RETURN TO INVESTORS, YEAR ENDED MAY 31, 1986, IN LOCAL CURRENCIES

THE TEN HIGHEST

	Sales rank	
AGA	423	373.15%
Fiat	22	336.08
Tabacalera	285	271.73
Michelin	91	240.00
Tarmac	245	231.11
Glaxo Holdings	291	223.52
ASEA	107	212.63
Cookson Group	427	209.68
News Corp.	259	204.88
Jefferson Smurfit Group	479	198.50

THE FIVE LOWEST

Dome Petroleum	279	-51.11%
IMETAL	283	-42.58
Schlumberger	75	-38.20
Cockerill Sambre	360	-37.34
Canada Development Corp.	205	-31.91

THE INDUSTRY MEDIANS

Soaps, cosmetics	101.11%
Publishing, printing	80.27
Tobacco	78.46
Building materials	60.62
Beverages	59.09
Rubber products	59.04
Pharmaceuticals	51.72
Metal products	48.90
Food	45.26
Forest products	41.91
Industrial and farm equipment	38.77
Chemicals	36.80
Textiles	30.53
Computers (includes office equipment)	20.12
Metals	18.08
Mining, crude-oil production	15.85
Petroleum refining	15.09
Electronics	14.77
Motor vehicles and parts	9.06
All Industries	*33.96*

COUNTRY MEDIANS

Sweden	102.23%
Australia	84.39
Britain	42.79
Switzerland	41.38
France	35.98
W. Germany	35.67
South Africa	33.09
Canada	31.90
Belgium	31.18
Japan	23.12

AVERAGE ANNUAL TOTAL RETURN TO INVESTORS, MAY '81-MAY '86, IN U.S. DOLLARS

THE TEN HIGHEST

	Sales rank	
Hanson Trust	154	135.98%
Fiat	22	119.94
Glaxo Holdings	291	112.25
Fletcher Challenge	226	96.02
ASEA	107	86.68
Volvo	42	86.16
News Corp.	259	85.34
Tarmac	245	84.31
BAT Industries	36	82.50
Imasco	181	81.74

THE FIVE LOWEST

Dome Petroleum	279	-43.20%
MIM Holdings	489	-19.14
Canada Development Corp.	205	-11.56
Gulf Canada	219	-10.95
Johnson Matthey	262	-10.65

THE INDUSTRY MEDIANS

Tobacco	48.00%
Publishing, printing	42.65
Soaps, cosmetics	37.17
Beverages	31.69
Textiles	31.17
Pharmaceuticals	30.30
Computers (includes office equipment)	28.86
Chemicals	28.42
Forest products	27.55
Food	26.13
Building materials	25.99
Metal products	23.86
Motor vehicles and parts	20.31
Rubber products	19.48
Petroleum refining	16.92
Electronics	13.30
Industrial and farm equipment	11.01
Metals	5.71
Mining, crude-oil production	-2.46
All Industries	*24.00*

COUNTRY MEDIANS

Sweden	29.82%
France	25.35
Japan	24.36
W. Germany	23.03
Australia	22.56
Britain	20.38
Switzerland	18.46
Canada	12.25

AVERAGE ANNUAL TOTAL RETURN TO INVESTORS, MAY '81-MAY '86, IN LOCAL CURRENCIES

THE TEN HIGHEST

	Sales rank	
Hanson Trust	154	152.63%
Fiat	22	134.61
Glaxo Holdings	291	127.23
Fletcher Challenge	226	113.87
News Corp.	259	103.46
ASEA	107	102.37
Volvo	42	101.81
Tarmac	245	97.35
BAT Industries	36	95.33
Norsk Hydro	101	89.75

THE FIVE LOWEST

Dome Petroleum	279	-41.64%
MIM Holdings	489	-11.25
Canada Development Corp.	205	-9.09
Sumitomo Metal Industries	89	-8.65
Gulf Canada	219	-8.45

THE INDUSTRY MEDIANS

Tobacco	62.87%
Soaps, cosmetics	37.75
Beverages	36.63
Publishing, printing	35.71
Metal products	30.96
Textiles	28.59
Chemicals	26.36
Pharmaceuticals	26.22
Computers (includes office equipment)	26.05
Food	25.67
Building materials	24.98
Forest products	23.79
Rubber products	19.97
Petroleum refining	19.25
Motor vehicles and parts	18.07
Electronics	13.26
Industrial and farm equipment	11.11
Metals	7.80
Mining, crude-oil production	3.30
All Industries	*24.12*

COUNTRY MEDIANS

Sweden	40.72%
Australia	34.53
France	32.77
Britain	28.92
W. Germany	22.99
Japan	18.31
Switzerland	16.89
Canada	15.40

NOTES TO THE INTERNATIONAL 500

SALES

All companies on the list must have derived more than 50% of their sales from manufacturing and/or mining. Sales do not include excise taxes or customs duties levied according to either volume or value sales, and so the figures for some companies—most of which sell gasoline, liquor, or tobacco—may be lower than those published by the companies themselves. Unless otherwise noted, figures exclude intra-company transactions and include consolidated subsidiaries more than 50% owned, either fully or on a prorated basis. Figures have been converted to dollars using an exchange rate that consists of the official average rate during each company's fiscal year (ended December 31, 1985, unless otherwise noted).

ASSETS

Totals shown at each company's year-end. Figures have been converted to dollars at the official exchange rate at each company's year-end.

NET INCOME

Net income is shown after taxes, minority interests, and extraordinary items. Figures have been converted to dollars using an exchange rate that consists of the official average rate during each company's fiscal year (ended December 31, 1985, unless otherwise noted).

STOCKHOLDERS' EQUITY

Stockholders' equity is shown at each company's year-end. Minority interest is not included. Figures have been converted to dollars at the official exchange rate at each company's year-end.

EMPLOYEES

The figure shown is either a year-end or yearly average number as published.

TOTAL RETURN TO INVESTORS

Total return to investors includes both price appreciation and dividend yield to an investor in the company's stock. The figures shown assume sales at the end of May 1986 of stock owned at the end of May 1981 or 1985. Any proceeds from cash dividends, the sale of rights and warrant offerings, and stock received in spinoffs are assumed to have been reinvested on the date they were paid. Returns are adjusted for stock splits, stock dividends, recapitalizations, and corporate reorganizations as they occur; however, no effort has been made to reflect the cost of brokerage commissions or of taxes. For all companies, share prices used are those quoted on local exchanges. Results are not listed if shares are not publicly traded or are traded on only a limited basis. If a company has more than one class of shares outstanding, only the more widely held and actively traded have been considered.

Total return percentages shown are the returns received by a hypothetical investor as described above. The five-year figures are annual averages, compounded.

INDUSTRY CODE

Industry code numbers used in the directory indicate which industry represents the greatest volume of industrial sales for each company. The numbers refer to the industry groups below, which are based on categories established by the U.S. Office of Management and Budget and issued by the Federal Statistical Policy and Standards Office. They are the same industry groups as those shown in the tables beginning on page 200. The median figures in the tables refer only to results of companies in the 500. No attempt has been made to calculate medians in groups or countries with fewer than four companies.

Mining, crude-oil production	10
Food	20
Tobacco	21
Textiles	22
Apparel	23
Furniture	25
Forest products	26
Publishing, printing	27
Chemicals	28
Petroleum refining	29
Rubber products	30
Leather	31
Building materials	32
Metals	33
Metal products	34
Electronics	36
Transportation equipment	37
Scientific and photographic equipment	38
Motor vehicles and parts	40
Aerospace	41
Pharmaceuticals	42
Soaps, cosmetics	43
Computers (includes office equipment)	44
Industrial and farm equipment	45
Jewelry, silverware	46
Toys, sporting goods	47
Beverages	49

Most of the figures in this FORTUNE International 500 Directory were prepared by Carrie Gottlieb and Alan Farnham.

ALPHABETICAL INDEX TO THE INTERNATIONAL 500

COMPANY	RANK
A	
ACI International	258
AECI	444
AEG Aktiengesellschaft	138
AGA	423
ALUSUISSE (Swiss Aluminium)	156
ARBED	434
ASEA	107
Abitibi-Price	263
Aérospatiale	133
Aisin Seiki	287
Ajinomoto	235
Akzo Group	86
Alcan Aluminium	81
Alfa-Laval	405
Allied-Lyons	150
Alps Electric	326
Amatil	464
Arla	447
Asahi Chemical Industry	121
Asahi Glass	145
Atlas Copco	409
Austria Tabakwerke	486
Avions Marcel Dassault-Breguet	230
B	
BASF	20
BAT Industries	36
BICC	182
BL	112
BMW (Bayerische Motoren Werke)	97
BOC Group	208
BSN	162
BTR	95
Babcock International	351
Barlow Rand	79
Bass	223
Bayer	19
Beecham Group	175
Béghin-Say	367
Bertelsmann	201
Bharat Heavy Electricals	413
Blue Circle Industries	393
Boehringer Ingelheim	328
Bosch (Robert)	58
Bosch-Siemens Hausgeräte	396
Bowater Industries	303
Bridgestone	142
British Aerospace	146
British Petroleum	2
British Shipbuilders	439
British Steel	105
Britoil	211
Broken Hill Proprietary	84
Brown Boveri	83
Bull	278
Burmah Oil	260
Burns Philp	459
Butano	490
C	
CEPSA (Española de Petróleos)	160
CGE (Cie Génerale d'Électricité)	48
CODELCO-CHILE (Corporación Nacional del Cobre)	312
CSR	210
Cadbury Schweppes	199
Canada Development Corp.	205
Canada Packers	213
Canadian General Electric	437
Canadian Pacific	40
Canon	125
Carl-Zeiss-Stiftung	496
Casio Computer	477
Charbonnages de France	114
China Steel	468
Chinese Petroleum	85
Chrysler Canada	92
Chrysler de Mexico	440
Ciba-Geigy	55
Citizen Watch	448
Coal India	241
Coats Patons	362
Cockerill Sambre	360
Conoco	187
Consolidated-Bathurst	381
Consolidated Gold Fields	419
Continental Gummi-Werke	299
Cookson Group	427
Courtaulds	185
D	
DSM	57
Daewoo	49
Dai Nippon Printing	169
Daicel Chemical Industries	495
Daido Steel	308
Daihatsu Motor	222
Daikin	478
Daikyo Oil	115
Daimler-Benz	16
Dainippon Ink & Chemicals	261
Daishowa Paper	333
Dalgety	110
De Beers Consolidated Mines	271
Degussa	131
Denki Kagaku Kogyo	469
Deutsche Babcock	302
Deutsche Texaco	164
Dillinger Hüttenwerke	497
Distillers	408
Dofasco	344
Dome Petroleum	279
Domtar	322
Doosan	412
Douwe Egberts	446
Dow Chemical Europe	120
Dunlop Olympic	348
E	
EFIM	171
ENI	5
ENPETROL (Empresa Nacional del Petróleo)	99
ENSIDESA (Empresa Nacional Siderúrgica)	432
East Asiatic	318
Ebara	499
Electrolux	108
Elf-Aquitaine	10
Elkem	482
Empresa Colombiana de Petról.	310
Empresa Nacional del Petróleo	377
Enso-Gutzeit	443
Entreprise Minière et Chimique	295
Ericsson (L.M.) Telephone	132
Esselte	403
Esso (France)	159
Esso (Germany)	66
Esso Belgium	232
Esso Italiana	165
Esso Nederland	316
Esso UK	50
F	
FAG Kugelfischer Georg Schafer	452
Fed. Volksbeleggings Beperk	425
Feldmühle Nobel	155
Fiat	22
Fletcher Challenge	226
Ford Brasil	384
Ford España	416
Ford Motor (Britain)	90
Ford Motor of Canada	45
Ford-Werke	100
Française des Pétroles	11
Freudenberg	422
Fuji Electric	237
Fuji Heavy Industries	186
Fuji Kosan	424
Fuji Photo Film	172
Fujitsu	68
Furukawa Electric	196
G	
GECAMINES	480
GECHEM	455
Gallaher	265
General Electric (Britain)	64
General Motors do Brasil	410
General Motors of Canada	26
General Sekiyu	176
Glaxo Holdings	291
Grand Metropolitan	76
Grundig	485
Grupo Industrial Alfa	324
Guest Keen & Nettlefolds	177
Guinness	442
Gulf Canada	219
Gulf Oil Great Britain	407
Gutehoffnungshütte	113
H	
Hachette	371
Hanson Trust	154
Hattori Seiko	243
Hawker Siddeley Group	242
Heineken	314
Henkel	163
Heraeus Holding	463
Hillsdown Holdings	341
Hino Motors	275
Hiram Walker Resources	193
Hispanoil	431
Hitachi	8
Hitachi Zosen	255
Hoechst	21
Hoesch	191
Holderbank Financière Glaris	342
Honda Motor	41
Honshu Paper	331
Hoogovens Groep	218
Hüls	266
Hyosung	204
Hyundai	25
I	
IBM Deutschland	111
IBM France	118
IBM Japan	130
IBM United Kingdom Holdings	127
IMETAL	283
IMI	465
IRI	3
ISAB (Industria Siliciana Asfalti Bitumi)	453
Idemitsu Kosan	46
Imasco	181
Imperial Chemical Industries	27
Imperial Group	148
Imperial Oil	69
Inco	338
Indian Oil	51
Indústrias Votorantim	420
International Thomson Org.	215
Iscor	298
Ishikawajima-Harima Heavy Ind.	129
Israel Aircraft Industries	500
Isuzu Motors	109
Itoham Foods	379
Ivaco	471
J	
Jacobs Suchard	229
Jaguar	476
Jefferson Smurfit Group	479
Johnson Matthey	262
Jujo Paper	276
K	
KF Industri	426
KHD (Klöckner-Humboldt-Deutz)	388
Kanebo	231
Kanegafuchi	493
Kanto Auto Works	421
Kao	307
Kawasaki Heavy Industries	149
Kawasaki Steel	98
Kemira	435
Kirin Brewery	209
Klöckner-Werke	323
Koa Oil	257
Kobe Steel	88
Koç Holding	173
Komatsu	152
Koninklijke Wessanen	374
Konishiroku Photo Industry	354
Koor Industries	253
Korea Explosives	180
Krupp (Fried.)	71
Kubota	189
Kuraray	397
Kuwait Petroleum	28
Kymmene-Strömberg	498
Kyocera	365
Kyowa Hakko Kogyo	433
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Labatt (John)	273
Lafarge Coppée	252
L'Air Liquide	224
Lesieur	457
Linde	492
Lion	400
L'Oréal	272
Lucas Industries	268
Lucky-Goldstar	43

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MBB (Messerschmitt-Bölkow-Blohm)	244
MIM Holdings	489
MacMillan Bloedel	296
Mannesmann	74
Maruzen Oil	77
Massey-Ferguson	368
Matra	305
Matsushita Electric Industrial	7
Matsushita Electric Works	198
Mazda Motor	62
Meiji Milk Products	319
Meiji Seika	386
Merck	429
Metal Box	353
Metallgesellschaft	139
Métallurgie Hoboken-Overpelt	350
Michelin	91
Minolta Camera	461
Mitsubishi Chemical Industries	93
Mitsubishi Electric	52
Mitsubishi Gas Chemical	363
Mitsubishi Heavy Industries	24
Mitsubishi Metal	212
Mitsubishi Mining & Cement	387
Mitsubishi Oil	116
Mitsubishi Petrochemical	269
Mitsubishi Rayon	378
Mitsui Engineering & Shipbldg.	347
Mitsui Mining	321
Mitsui Mining & Smelting	373
Mitsui Petrochemical	361
Mitsui Toatsu Chemicals	254
Mobil Oil (Britain)	330
Mobil Oil (Germany)	143
Mobil Oil Française	311
Mobil Oil Italiana	203
Molson	406
Montedison	56
Moore	240
Morinaga Milk Industry	376

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NEC	47
NTN Toyo Bearing	450
National Coal Board	192
Neste	82
Nestlé	17
News Corp.	259
Nichirei	356
Nichiro Gyogyo	417
Nihon Cement	475
Nippon Gakki	304
Nippon Kokan	70
Nippon Light Metal	277
Nippon Meat Packers	315
Nippon Mining	94
Nippon Oil	32
Nippon Seiko	436
Nippon Steel	33
Nippon Suisan	225
Nippondenso	128
Nissan Diesel Motor	415
Nissan Motor	12
Nissan Shatai	236
Nisshin Flour Milling	325
Nisshin Steel	301
Nisshinbo	473
Nixdorf Computer	364
Nobel Industries	380
Nokia	282
Noranda	194
Norsk Hydro	101
Northern Engineering Industries	414
Northern Foods	313
Northern Telecom	117

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ÖMV (Österreichische Mineralölverwaltung)	170
Oerlikon-Bührle	251
Oil & Natural Gas Commission	153
Oji Paper	228
Oki Electric Industry	297
Olivetti	158
Oljekonsumenternas Förbund	391
Omron Tateisi Electronics	399
Onoda Cement	359
Opel (Adam)	96

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PETROGAL (Petróleos de Portugal)	264
PETRONOR (Petróleos del Norte)	402
PETROPERU	392
PWA	454
Pearson	385
Pechiney	126
Pemex (Petróleos Mexicanos)	9
Pernod Ricard	483
Pertamina	35
Petro-Canada	136
Petrobrás (Petróleo Brasileiro)	18
Petrofina	44
Petróleos de Venezuela	34
Peugeot	38
Philippine National Oil	404
Philips' Gloeilampenfabrieken	13
Pilkington Brothers	327
Pioneer Concrete Services	233
Pioneer Electronic	358
Pirelli	140
Plessey	281
Pohang Iron & Steel	206
Porsche	458
Premier Group	383
Preussag	122
Procordia	352
Prouvost	451

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RMC Group	284
Racal Electronics	357
Rank Xerox	217
Ranks Hovis McDougall	309
Rauma-Repola	370
Reckitt & Colman	306
Redland	401
Reed International	188
Renault	30
Rengo	460
Rheinische Braunkohlenwerke	441
Rhône-Poulenc	72
Ricoh	220
Rio Tinto-Zinc	59
Roche / Sapac	141
Rolls-Royce	239
Rothmans International	147
Rowntree Mackintosh	320
Royal Dutch / Shell Group	1
Royal Pkg. Industries Van Leer	484
Ruhrkohle	53
Rütgerswerke	428

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SEAT	394
SIDOR	449
SKF	214
SNECMA	317
SNIA BPD	395
SSAB (Svenskt Stål)	339
STC	190
Saab-Scania	135
Saarbergwerke	195
Sabanci (Haci Ömer) Holding	174
Sacilor	87
Saint-Gobain	54
Salzgitter	168
Samsung	23
Sandoz	144
Sandvik Group	345
Sankyo	343
Sanyo Electric	73
Sanyo-Kokusaku Pulp	293
Sasol	290
Schering	289
Schlumberger	75
Seagram	249
Sekisui Chemical	300
Sharp	106
Shin-Etsu Chemical	329
Shionogi	466
Shiseido	337
Showa Denko	256
Showa Sangyo	487
Showa Shell Sekiyu	60
Siderúrgica Nacional	470
Siemens	14
Snow Brand Milk Products	151
Solvay	134
Sony	80
Source Perrier	418
Ssangyong	137
Standard Elektrik Lorenz	294
Statoil	78
Steel Authority of India	178
Stelco	280
Stora Kopparbergs Bergslags	334
Sulzer Brothers	267
Sumitomo Chemical	119
Sumitomo Electric Industries	179
Sumitomo Heavy Industries	355
Sumitomo Metal Industries	89
Sumitomo Metal Mining	288
Sumitomo Rubber	474
Suncor	462
Sunkyong	67
Superfos	445
Suzuki Motor	184
Svenska Cellulosa	340
Swedish Match	389
Syntex	481

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TBG	270
TDK	286
TI Group	369
Tabacalera	285
Taiyo Fishery	104
Takeda Chemical	221
Tarmac	245
Tate & Lyle	247
Teijin	202
Texaco (Britain)	161
Texaco Canada	166
Thomson	61
Thorn EMI	124
Thyssen	37
Toa Nenryo Kogyo	102
Tokyo Sanyo Electric	227
Toppan Printing	183
Toray Industries	157
Toshiba	31
Toyo Sash	494
Toyo Seikan	216
Toyo Soda Manufacturing	456
Toyo Tire & Rubber	491
Toyobo	238
Toyoda Automatic Loom Works	411
Toyota Auto Body	375
Toyota Motor	4
Türkiye Petrolleri	63

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USIMINAS	467
Ube Industries	207
Ultramar	167
Unigate	200
Unilever	6
Unión Explosivos Rio Tinto	346
Union International	292
Union Laitière Normande	366
United Biscuits (Holdings)	197
Unitika	332
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VIAG	248
VÖEST-Alpine	29
Vaal Reefs Exploration & Mining	488
Vale do Rio Doce	274
Valeo	372
Vallourec	336
Valmet	472
Valores Industriales	430
Vauxhall Motors	246
Veba Oel	65
Volkswagen	15
Volvo	42

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Wellcome Foundation	390
Weston (George) Holdings	39
Whitbread	349

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YPF (Yacimientos Petrolíferos)	103
Yamaha Motor	234
Yamazaki Baking	335
Yokohama Rubber	382
Yoshida Kogyo	438

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Zahnradfabrik Friedrichshafen	398
Zambia Industrial & Mining	250

THE LARGEST BANKS OUTSIDE THE U.S.

In commercial banking, the Japanese dominate. They claim 30 slots on FORTUNE's list—five at the very top. But if you're interested in profit gains, look to the Europeans.

THE SUN of Japanese banking continues to rise in FORTUNE's directory of the largest commercial banks outside the U.S. Consider the ways in which Japanese banks shine:

- For the third year Dai-Ichi Kangyo Bank of Tokyo tops the rankings, with assets of $166 billion. That puts Dai-Ichi right on the heels of America's Citicorp, the biggest bank of all.
- Once again Japanese banks hold the top five positions in this directory, and a sixth has joined the top ten.
- Japan has 30 banks among the 100, one more than last year, and 21 are among the top 50. As recently as 1982, French banks dominated the top of the list. Japan has more banks among the 100 than France, Britain, and West Germany combined.

Currency translations gave Japan some help in this showing, because banks are ranked by the dollar value of assets. With the yen strengthening against the dollar, the Japanese banks' impressive gains in yen—as much as 25%—look even better when translated into U.S. currency.

Japan did not hog the good news. For the 100 banks as a whole, 1985 was satisfying. Assets rose 24%, deposits 22%, and net income 13%. Profits look especially robust when compared with the anemic 5.7% gain in 1984—and 1983's 1.6% *decline.*

Surprisingly, Japanese banks were laggards in profitability. Dai-Ichi ranks only 16th in net income, and three Japanese banks are among the ten with the biggest decreases in earnings. The sharpest decline, however, was that of West Germany's Bank für Gemeinwirtschaft, whose net income plunged 77%. It didn't really do badly; it paid its parent holding company a dividend in 1985 that was not paid in 1984.

Nine of the ten biggest increases were posted by European banks. (The tenth: Australia's Australia & New Zealand Banking Group.) Banco Hispano Americano of Madrid (No. 95) reported the biggest gain in net income—a staggering 10,799%—after recovering from a disastrous 1984, when it had to set aside a huge sum as a bad-debt provision for a subsidiary.

Four banks on this year's FORTUNE directory did not make last year's list: Banco Hispano Americano and another Spanish institution, Banco de Bilbao (No. 100), Italy's Banco di Sicilia (No. 96), and Japan's Shizuoka Bank (No. 98). Bumped from the list by faster-growing brethren were National Commercial Bank of Saudi Arabia, another victim of dropping oil prices (No. 93 last year); Belgium's Kredietbank (No. 94); and South Korea's Bank of Seoul (No. 100). Iraq's Rafidain Bank, which was No. 63 on last year's list, is also among the missing this year. Rafidain Bank failed to provide an annual report or other published data.

In case there is any doubt, the banks outside the U.S. rank low in nobody's league. The smallest bank on this list, Banco de Bilbao, had assets of $17.5 billion. In America it would rank No. 30, ahead of Houston's First City Bancorp. of Texas. And it earned nearly three times as much as First City. Not bad, Banco de Bilbao.

—Anthony Ramirez

RESEARCH ASSOCIATE *Philip Mattera*

RANK		BANK
'85	'84	
1	1	Dai-Ichi Kangyo Bank [7,8]
2	2	Fuji Bank [7,8]
3	3	Sumitomo Bank [7,8]
4	4	Mitsubishi Bank [7,8]
5	5	Sanwa Bank [7,8]
6	6	Banque Nationale de Paris [9]
7	7	Caisse Nationale de Crédit Agricole [9]
8	8	Crédit Lyonnais [9]
9	14	National Westminster Bank
10	13	Industrial Bank of Japan [7,8]
11	9	Société Générale [9]
12	17	Deutsche Bank [10]
13	10	Barclays Bank
14	15	Tokai Bank [7,8]
15	16	Mitsui Bank [7,8]
16	19	Long-Term Credit Bank of Japan [7,8]
17	12	Norinchukin Bank [7,11]
18	18	Midland Bank
19	21	Mitsubishi Trust & Banking [7,8]
20	24	Sumitomo Trust & Banking [7,8]
21	11	Bank of Tokyo [11]
22	23	Taiyo Kobe Bank [7,8]
23	27	Dresdner Bank [10]
24	26	Cie Financière de Paris et des Pays-Bas [9]
25	28	Mitsui Trust & Banking [7,8]
26	20	Royal Bank of Canada [13]
27	22	Hongkong & Shanghai Banking
28	29	Daiwa Bank [7,8]
29	32	Union Bank of Switzerland [7]
30	34	Yasuda Trust & Banking [7,8]
31	36	Swiss Bank Corp. [7]
32	31	Lloyds Bank
33	25	Bank of Montreal [13]
34	35	Banca Nazionale del Lavoro [9]
35	38	Westdeutsche Landesbank Girozentrale [9,10]
36	33	Banco do Brasil [9]
37	44	Commerzbank [10]
38	30	Canadian Imperial Bank of Commerce [13]
39	43	Bayerische Vereinsbank [10]
40	39	Nippon Credit Bank [7,8]
41	40	Algemene Bank Nederland
42	45	Kyowa Bank [7,8]
43	51	Toyo Trust & Banking [7,8]
44	50	Amsterdam-Rotterdam Bank
45	47	Robobank
46	42	Banca Commerciale Italiana [9]
47	54	Bayerische Hypotheken -und Wechsel-Bank [10]
48	37	Bank of Nova Scotia [13]
49	49	Saitama Bank [7,8]
50	55	Bayerische Landesbank Girozentrale [7]

[1] Asset figures have been converted into U.S. dollars using the market rate prevailing at each bank's fiscal year-end, which is December 31, 1985, unless otherwise noted. Chuo Trust & Banking, Daiwa Bank, Mitsubishi Trust & Banking, Mitsui Trust & Banking, Sumitomo Trust & Banking, Toyo Trust & Banking, and Yasuda Trust & Banking include holdings of major trusts in their assets.

THE 100 LARGEST COMMERCIAL BANKING COMPANIES RANKED BY ASSETS

COUNTRY	ASSETS[1] $000	INCREASE (DECREASE) IN U.S. DOLLARS PERCENT	INCREASE (DECREASE) IN LOCAL CURRENCIES PERCENT	DEPOSITS[2] $000	DEPOSITS[2] RANK	LOANS[3] $000	NET INCOME[4] $000	STOCKHOLDERS' EQUITY[5] $000	OFFICES[6]	EMPLOYEES
Japan	165,653,339	32.03	15.78	122,824,961	1	93,209,099	266,488	2,736,693	375	21,125
Japan	145,763,547	25.83	10.33	105,913,635	2	75,831,958	298,056	3,063,238	289	15,836
Japan	140,514,323	22.25	7.20	103,830,998	4	74,171,275	321,529	3,047,007	256	14,486
Japan	135,162,379	21.73	6.74	98,703,215	7	72,915,524	271,033	2,655,196	235	15,075
Japan	129,546,125	26.49	10.91	96,840,005	8	72,064,702	261,033	2,464,240	273	15,766
France	123,958,594	26.01	(2.00)	102,703,743	5	97,733,134	221,222	2,457,554	2,621	59,294
France	123,767,206	34.74	4.80	102,320,733	6	106,558,521	123,239	3,482,864	10,605	74,091
France	112,252,302	24.82	(2.92)	103,857,632	3	103,462,487	133,949	1,455,243	2,585	54,870
Britain	104,716,260	26.44	1.33	93,568,085	9	90,429,545	572,648	4,313,325	3,788	92,000
Japan	98,523,635	18.31	3.75	85,762,157	11	60,060,744	187,204	2,096,716	30	5,601
France	98,322,661	13.55	(11.68)	82,860,476	12	87,409,189	145,592	1,994,658	2,201	44,172
W. Germany	96,946,249	31.68	2.13	87,188,955	10	76,810,796	368,566	3,678,791	1,410	48,851
Britain	94,203,885	10.50	(11.45)	79,658,515	13	82,864,970	583,012	4,780,060	4,062	105,900
Japan	94,030,725	20.80	5.92	72,829,903	16	53,820,808	150,023	1,668,661	243	13,748
Japan	92,003,446	22.29	7.23	69,425,256	20	54,193,446	145,954	1,646,212	233	11,331
Japan	87,212,074	24.78	9.42	68,055,030	21	50,347,529	114,213	1,622,956	27	3,447
Japan	86,360,964	3.21	15.26	76,985,633	14	44,978,319	100,242	507,865	39	3,143
Britain	83,916,930	17.87	(5.54)	75,806,145	15	70,267,460	158,061	2,668,915	3,000	78,590
Japan	83,221,515	32.88	16.52	70,964,203	18	38,383,233	91,456	977,390	59	6,313
Japan	81,951,973	38.14	21.13	70,225,982	19	38,956,992	92,190	977,737	58	5,937
Japan	81,918,378	(2.20)	9.22	55,795,390	29	40,911,629	137,946	1,295,076	295	14,235
Japan	78,313,727	28.22	12.43	58,460,245	25	47,457,566	86,903	1,352,928	361	14,773
W. Germany	77,100,026	39.22	7.98	71,879,064	17	61,323,696	146,885	2,170,085	1,181	33,098
France	73,420,579	31.47	2.26	22,116,817	74	40,881,518	116,973	1,202,398	N.A.	28,000[12]
Japan	73,089,958	34.29	17.75	62,166,254	22	37,793,085	75,775	813,409	61	5,503
Canada	70,249,388	4.97	9.11	61,123,038	24	46,700,909	360,294	3,049,350	1,494	37,430
Hong Kong	69,882,805	13.54	13.29	61,610,631	23	41,980,532	348,966	2,802,690	1,208	46,000
Japan	69,197,921	29.59	13.63	57,859,210	26	34,106,111	64,909	917,977	192	9,740
Switzerland	67,695,689	34.38	6.43	57,046,563	27	53,903,882	281,190	3,913,439	259	18,677
Japan	64,780,185	37.70	20.74	53,500,527	31	30,427,718	52,197	626,762	60	5,161
Switzerland	62,103,359	35.71	7.48	52,559,124	33	48,881,360	245,201	3,585,735	220	14,825
Britain	61,610,465	20.89	(3.12)	56,693,130	28	53,632,620	531,189	3,326,390	2,938	70,982
Canada	60,301,215	3.67	7.75	52,230,053	34	38,020,352	250,369	2,525,956	1,215	33,280
Italy	59,275,531	26.12	8.66	50,936,636	35	39,470,640	135,897	2,919,386	414	25,379
W. Germany	58,074,924	29.49	0.43	53,969,795	30	46,873,136	15,780	1,643,836	13	7,291
Brazil	56,141,599	18.37	289.97	21,955,598	75	47,907,683	1,379,675	4,339,377	2,276	117,498
W. Germany	56,078,634	44.21	11.85	52,815,211	32	45,886,408	116,739	1,363,325	882	24,154
Canada	55,483,128	7.11	11.33	47,620,428	37	40,566,014	266,737	2,452,106	1,630	33,587
W. Germany	54,106,624	37.49	6.64	50,709,369	36	46,626,243	70,779	1,055,340	462	13,078
Japan	52,230,952	23.52	8.31	43,359,127	41	32,100,074	69,877	1,014,374	24	2,112
Netherlands	51,678,286	25.33	(3.18)	46,375,454	38	29,269,789	143,925	1,502,179	958	28,688
Japan	49,564,905	29.25	13.34	38,035,524	46	28,837,464	68,096	873,048	240	10,043
Japan	49,327,298	42.75	25.18	43,289,238	42	20,378,919	50,122	538,568	60	4,825
Netherlands	48,603,849	38.76	7.19	43,811,547	40	25,169,208	102,374	1,416,485	823	23,260
Netherlands	47,837,432	33.84	3.39	44,603,308	39	34,496,975	201,182	2,559,232	3,467	30,542
Italy	46,524,460	17.25	1.02	41,875,959	44	32,859,832	159,047	1,376,499	559	22,659
W. Germany	46,031,685	38.13	7.14	42,924,011	43	40,258,776	72,629	1,042,555	490	11,898
Canada	44,680,125	(0.62)	3.29	38,560,329	45	30,453,263	224,108	1,901,069	1,192	25,753
Japan	44,343,145	25.42	9.98	35,457,931	50	25,055,136	62,370	877,381	200	8,683
W. Germany	44,246,348	33.17	3.29	36,021,477	49	34,112,768	48,568	1,064,978	5	4,057

[2] Deposit figures have been converted into U.S. dollars using the market rate as of each bank's fiscal year-end. Figures for all German banks include their own bonds; so do the figures for Bank of Toyko, Industrial Bank of Japan, Long-Term Credit Bank of Japan, and Norinchukin Bank. Banco do Brasil includes funds for refinancing.

[3] Loan figures have been converted into U.S. dollars using the market rate prevailing at each bank's fiscal year-end. Figures include loans to banks and money at call or available on short notice.

[4] Net income figures have been converted into U.S. dollars using the average rate in the official exchange market during the bank's fiscal year. Net income is after taxes and excludes minority interest.

[5] Stockholders' equity figures have been converted into U.S. dollars using the market rate prevailing at each bank's fiscal year-end. Equity is the sum of capital stock, surplus, and retained earnings. Figures for all French banks are before appropriation of profits.

[6] Includes head office, branches, and agencies.

N.A. Not available.

RANK		BANK	COUNTRY	ASSETS	INCREASE (DECREASE)		DEPOSITS		LOANS
'85	'84			$000	IN U.S. DOLLARS PERCENT	IN LOCAL CURRENCIES PERCENT	$000	RANK	$000
51	56	**Credit Suisse** [7]	Switzerland	43,039,609	33.22	5.51	36,456,378	48	31,918,078
52	52	**Istituto Bancario San Paolo di Torino** [9]	Italy	42,449,397	23.99	6.83	33,468,799	57	18,894,318
53	70	**Deutsche Genossenschaftsbank** [10]	W. Germany	42,396,710	60.69	24.63	37,787,163	47	33,097,379
54	41	**Standard Chartered Bank**	Britain	41,664,263	4.41	(16.33)	35,346,578	51	34,585,063
55	64	**Banco di Roma** [9]	Italy	40,766,083	40.80	21.31	33,079,106	58	29,448,914
56	68	**Cie Financière de Suez** [9]	France	40,061,616	46.69	14.09	10,853,601	100	21,733,621
57	59	**Monte dei Paschi di Siena** [9,10]	Italy	39,593,722	30.80	12.69	33,649,426	56	30,085,423
58	57	**Hokkaido Takushoku Bank** [7,8]	Japan	38,095,917	22.20	7.15	28,219,801	62	20,510,633
59	61	**Cassa di Risparmio delle Provincie Lombarde**	Italy	38,042,136	27.82	10.12	29,623,972	60	16,757,943
60	65	**Norddeutsche Landesbank Girozentrale** [9,10]	W. Germany	37,848,437	35.42	5.03	34,646,686	52	30,963,736
61	58	**Credito Italiano** [9]	Italy	37,453,727	23.19	6.14	33,767,431	55	27,997,832
62	46	**Shoko Chukin Bank** [7,9,11]	Japan	37,372,976	(1.03)	10.52	33,861,124	54	31,299,737
63	69	**Générale de Banque**	Belgium	36,897,722	36.51	8.05	34,567,952	53	34,175,884
64	48	**Toronto-Dominion Bank** [13]	Canada	36,741,509	3.69	7.77	31,819,027	59	26,561,460
65	60	**State Bank of India** [9]	India	36,219,315	21.09	18.45	24,614,006	66	15,870,224
66	66	**Crédit Industriel et Commercial** [9]	France	35,525,051	28.08	(0.38)	29,246,230	61	15,693,158
67	53	**Westpac Banking** [8]	Australia	34,500,969	2.94	21.56	22,994,814	71	22,562,533
68	67	**Bank of Yokohama** [7,8]	Japan	34,355,594	24.82	9.45	27,246,342	63	21,447,935
69	80	**Groupe des Banques Populaires**	France	30,480,986	51.15	17.56	16,838,095	89	12,424,775
70	74	**Banco di Napoli** [7,9]	Italy	30,320,749	35.84	17.04	26,316,163	64	13,238,193
71	62	**Australia & New Zealand Banking** [8]	Australia	30,033,037	1.04	19.32	20,042,453	77	18,526,617
72	77	**Chuo Trust & Banking** [7,8]	Japan	29,569,617	42.15	24.65	26,044,254	65	12,906,291
73	75	**Hessische Landesbank-Girozentrale-** [10]	W. Germany	28,068,854	29.15	0.17	22,675,415	72	7,406,948
74	76	**Banque Bruxelles Lambert** [8]	Belgium	27,436,376	29.98	13.42	24,565,073	67	9,249,526
75	81	**Bank für Gemeinwirtschaft** [10]	W. Germany	26,018,599	30.91	1.54	24,528,276	68	20,677,566
76	83	**Nederlandsche Middenstandsbank**	Netherlands	25,485,839	32.94	2.70	23,572,622	69	16,780,320
77	73	**National Australia Bank** [8,9]	Australia	24,801,103	8.77	28.45	15,541,694	93	18,463,539
78	72	**Zenshinren Bank** [7,11]	Japan	24,719,853	4.84	17.08	23,092,936	70	11,800,028
79	85	**Creditanstalt-Bankverein** [9,14]	Austria	24,330,931	35.44	5.23	22,505,125	73	13,995,247
80	84	**Banque Française du Commerce Extérieur** [9]	France	24,196,360	31.54	2.31	11,305,474	99	12,659,398
81	86	**Crédit Communal de Belgique** [14]	Belgium	24,070,334	34.85	6.74	21,425,198	76	13,201,432
82	71	**Commonwealth Banking** [9,15]	Australia	23,450,816	(10.74)	15.03	16,879,087	88	13,775,689
83	92	**Crédit Mutuel**	France	23,403,263	44.14	12.11	18,488,178	80	10,695,971
84	79	**Skandinaviska Enskilda Banken**	Sweden	23,088,845	13.92	(3.95)	17,761,584	83	12,482,376
85	96	**ASLK-CGER** [14]	Belgium	22,530,749	40.93	11.55	19,069,331	78	21,732,967
86	78	**Bank Leumi le-Israel** [10]	Israel	22,178,830	7.49	152.36	18,269,292	81	12,793,040
87	82	**Bank Hapoalim**	Israel	21,969,354	14.53	168.88	15,089,611	94	17,555,309
88	90	**Banco Central**	Spain	21,917,505	32.62	17.64	17,180,734	86	8,679,246
89	87	**Svenska Handelsbanken**	Sweden	21,749,175	24.22	4.73	15,797,756	92	11,370,165
90	89	**Crédit Commercial de France** [9]	France	21,668,995	30.08	1.17	17,733,515	84	20,096,296
91	88	**Hokuriku Bank** [7,8]	Japan	21,250,471	24.21	8.91	18,163,640	82	15,251,801
92	91	**Royal Bank of Scotland** [8]	Britain	21,171,304	28.17	12.29	18,556,706	79	17,979,362
93	95	**Post-och Kreditbanken** [9]	Sweden	20,862,852	30.09	9.68	17,402,538	85	10,866,323
94	97	**Chiba Bank** [7,8]	Japan	19,764,069	24.35	9.04	16,979,557	87	14,826,291
95	●	**Banco Hispano Americano**	Spain	19,260,838	45.84	29.36	13,116,894	98	8,426,049
96	●	**Banco di Sicilia** [9]	Italy	18,829,097	25.21	7.88	14,905,592	95	10,798,559
97	98	**Joyo Bank** [7,8]	Japan	18,485,630	21.58	6.61	16,278,166	90	12,814,758
98	●	**Shizuoka Bank** [7,8]	Japan	18,340,023	23.11	7.95	16,141,995	91	12,333,727
99	99	**Banco Español de Crédito** [7,14]	Spain	18,090,370	19.55	6.05	14,067,901	96	7,113,723
100	●	**Banco de Bilbao**	Spain	17,536,719	43.94	27.68	13,756,264	97	7,670,890
		TOTALS		**5,390,027,048**			**4,371,025,805**		**3,513,009,330**

[7] Parent company only.
[8] Figures are for fiscal year ended September 30, 1985.
[9] Government-owned.
[10] Excludes some subsidiaries more than 50% owned.
[11] Figures are for fiscal year ended March 31, 1985.
[12] Average for the year.
[13] Figures are for fiscal year ended October 31, 1985.
[14] Includes certain subsidiaries owned 50% or less, either fully or on a prorated basis.
[15] Figures are for fiscal year ended June 30, 1985.
● Not on last year's list.
N.A. Not available.

NET INCOME $000	STOCK-HOLDERS' EQUITY $000	OFFICES	EMPLOYEES
206,011	2,715,738	196	12,473
274,093	1,580,651	35	17,466
65,186	940,098	23	4,176
192,265	1,792,233	2,065	33,009
62,467	1,136,394	403	15,713
168,738	1,684,088	514	15,462
163,965	N.A.	733	16,029
42,463	608,661	202	6,953
77,007	2,139,267	536	13,580
26,190	671,639	223	6,000
105,374	1,729,572	505	18,162
19,435	908,012	90	6,277
69,234	650,370	1,171	15,639
306,762	1,980,778	986	20,381
25,962	474,788	10,841	270,884
71,363	602,612	1,421	25,537
272,457	1,576,455	1,777	43,370
61,214	887,783	199	7,148
57,763	1,046,021	1,830	28,650
8,992	793,049	501	13,459
244,310	1,515,940	1,657	38,031
14,267	194,665	52	3,714
19,978	557,536	6	2,796
35,106	414,904	1,000	11,899
11,642	834,369	279	8,797
48,176	664,851	481	11,660
245,801	1,383,215	1,679	23,629
57,884	312,251	17	913
17,132	654,878	333	9,412
6,698	215,010	30	3,000
18,728	418,414	1,406	2,927
183,623	1,230,103	1,316	32,202
62,437	998,069	4,500	19,500
55,651	398,416	349	8,078[12]
30,668	691,668	1,067	9,702
70,404	737,571	412	14,154
68,355	638,946	370	9,800
124,217	928,843	2,814	25,413
42,348	218,719	452	6,110[10]
28,447	394,830	292	8,900
36,028	552,901	177	5,328
117,599	1,242,297	852	17,590[12]
27,734	251,508	134	4,039[12]
41,496	598,693	163	5,430
74,508	552,768	1,739	19,672
10,973	743,505	328	9,251
47,326	666,781	148	5,663
49,336	828,919	189	5,889
132,583	987,070	2,248	17,523
112,217	675,432	1,738	19,668
14,805,025	**148,238,535**		**2,365,845**

RETURN ON STOCKHOLDERS' EQUITY

THE TEN HIGHEST

	Rank	
Banco do Brasil	36	31.8%
Norinchukin Bank	17	19.7
Svenska Handelsbanken	89	19.4
Zenshinren Bank	78	18.5
National Australia Bank	77	17.8
Istituto Bancario San Paolo di Torino	52	17.3
Westpac Banking	67	17.3
Banco de Bilbao	100	16.6
Australia & New Zealand Banking	71	16.1
Lloyds Bank	32	16.0
The Median		*8.9*

ASSETS PER EMPLOYEE

THE TEN HIGHEST

	Rank	
Norinchukin Bank	17	$27,477,240
Zenshinren Bank	78	27,075,414
Long-Term Credit Bank of Japan	16	25,300,863
Nippon Credit Bank	40	24,730,564
Industrial Bank of Japan	10	17,590,365
Sumitomo Trust & Banking	20	13,803,600
Mitsui Trust & Banking	25	13,281,839
Mitsubishi Trust & Banking	19	13,182,562
Yasuda Trust & Banking	30	12,551,867
Bayerische Landesbank Girozentrale	50	10,906,174
THE FIVE LOWEST		
State Bank of India	65	$133,708
Banco do Brasil	36	477,809
Commonwealth Banking	82	728,241
Australia & New Zealand Banking	71	789,699
Westpac Banking	67	795,503
The Median		*$2,588,035*

CHANGES IN PROFITS

THE TEN BIGGEST INCREASES

	Rank	
Banco Hispano Americano	95	10,799.3%
Midland Bank	18	163.0
Westdeutsche Landesbank Girozentrale	35	140.2
Crédit Industriel et Commercial	66	124.0
Australia & New Zealand Banking	71	123.3
Cie Financière de Suez	56	109.3
Standard Chartered Bank	54	96.1
Monte dei Paschi di Siena	57	95.4
Lloyds Bank	32	72.9
Deutsche Bank	12	58.6
THE TEN BIGGEST DECREASES		
Bank für Gemeinwirtschaft	75	77.1%
Shoko Chukin Bank	62	18.1
ASLK-CGER	85	16.5
Commonwealth Banking	82	14.3
Royal Bank of Scotland	92	13.8
Cie Financière de Paris et des Pays-Bas	24	13.3
Westpac Banking	67	11.6
Chiba Bank	94	10.3
Tokai Bank	14	9.3
Groupe des Banques Populaires	69	9.2
The Median		*11.3*

The figures on the 100 Largest Commercial Banking Companies Outside the U.S. were prepared by Philip Mattera.

THE BANKS BY COUNTRY

Rank breakdown	1-50	51-100	Total	Largest bank	Assets ($000)	Rank
Australia	0	4	4	Westpac Banking	34,500,969	67
Austria	0	1	1	Creditanstalt-Bankverein	24,330,931	79
Belgium	0	4	4	Générale de Banque	36,897,722	63
Brazil	1	0	1	Banco do Brasil	56,141,599	36
Britain	4	2	6	National Westminster Bank	104,716,260	9
Canada	4	1	5	Royal Bank of Canada	70,249,388	26
France	5	6	11	Banque Nationale de Paris	123,958,594	6
Hong Kong	1	0	1	Hongkong & Shanghai Banking	69,882,805	27
India	0	1	1	State Bank of India	36,219,315	65
Israel	0	2	2	Bank Leumi le-Israel	22,178,830	86
Italy	2	7	9	Banca Nazionale del Lavoro	59,275,531	34
Japan	21	9	30	Dai-Ichi Kangyo Bank	165,653,339	1
Netherlands	3	1	4	Algemene Bank Nederland	51,678,286	41
Spain	0	4	4	Banco Central	21,917,505	88
Sweden	0	3	3	Skandinaviska Enskilda Banken	23,088,845	84
Switzerland	2	1	3	Union Bank of Switzerland	67,695,689	29
West Germany	7	4	11	Deutsche Bank	96,946,249	12

ALPHABETICAL INDEX OF THE LARGEST COMMERCIAL BANKING COMPANIES OUTSIDE THE U.S.

COMPANY	RANK
ASLK-CGER	85
Algemene Bank Nederland	41
Amsterdam-Rotterdam Bank	44
Australia & New Zealand Banking	71
Banca Commerciale Italiana	46
Banca Nazionale del Lavoro	34
Banco Central	88
Banco de Bilbao	100
Banco di Napoli	70
Banco di Roma	55
Banco di Sicilia	96
Banco do Brasil	36
Banco Español de Crédito	99
Banco Hispano Americano	95
Bank für Gemeinwirtschaft	75
Bank Hapoalim	87
Bank Leumi le-Israel	86
Bank of Montreal	33
Bank of Nova Scotia	48
Bank of Tokyo	21
Bank of Yokohama	68
Banque Bruxelles Lambert	74
Banque Française du Commerce Extérieur	80
Banque Nationale de Paris	6
Barclays Bank	13
Bayerische Hypotheken -und Wechsel-Bank	47
Bayerische Landesbank Girozentrale	50
Bayerische Vereinsbank	39
Caisse Nationale de Crédit Agricole	7
Canadian Imperial Bank of Commerce	38
Cassa di Risparmio delle Provincie Lombarde	59
Chiba Bank	94
Chuo Trust & Banking	72
Cie Financière de Paris et des Pays-Bas	24
Cie Financière de Suez	56
Commerzbank	37
Commonwealth Banking	82
Crédit Commercial de France	90
Crédit Communal de Belgique	81
Crédit Industriel et Commercial	66
Crédit Lyonnais	8
Crédit Mutuel	83
Crédit Suisse	51
Creditanstalt-Bankverein	79
Credito Italiano	61
Dai-Ichi Kangyo Bank	1
Daiwa Bank	28
Deutsche Bank	12
Deutsche Genossenschaftsbank	53
Dresdner Bank	23
Fuji Bank	2
Générale de Banque	63
Groupe des Banques Populaires	69
Hessische Landesbank-Girozentrale-	73
Hokkaido Takushoku Bank	58
Hokuriku Bank	91
Hongkong & Shanghai Banking	27
Industrial Bank of Japan	10
Istituto Bancario San Paolo di Torino	52
Joyo Bank	97
Kyowa Bank	42
Lloyds Bank	32
Long-Term Credit Bank of Japan	16
Midland Bank	18
Mitsubishi Bank	4
Mitsubishi Trust & Banking	19
Mitsui Bank	15
Mitsui Trust & Banking	25
Monte dei Paschi di Siena	57
National Australia Bank	77
National Westminster Bank	9
Nederlandsche Middenstandsbank	76
Nippon Credit Bank	40
Norddeutsche Landesbank Girozentrale	60
Norinchukin Bank	17
Post-och Kreditbanken	93
Rabobank	45
Royal Bank of Canada	26
Royal Bank of Scotland	92
Saitama Bank	49
Sanwa Bank	5
Shizuoka Bank	98
Shoko Chukin Bank	62
Skandinaviska Enskilda Banken	84
Société Générale	11
Standard Chartered Bank	54
State Bank of India	65
Sumitomo Bank	3
Sumitomo Trust & Banking	20
Svenska Handelsbanken	89
Swiss Bank Corp.	31
Taiyo Kobe Bank	22
Tokai Bank	14
Toronto-Dominion Bank	64
Toyo Trust & Banking	43
Union Bank of Switzerland	29
Westdeutsche Landesbank Girozentrale	35
Westpac Banking	67
Yasuda Trust & Banking	30
Zenshinren Bank	78

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■ G.M.'S ROGER SMITH TALKS BACK TO HIS CRITICS ■

AUGUST 18, 1986

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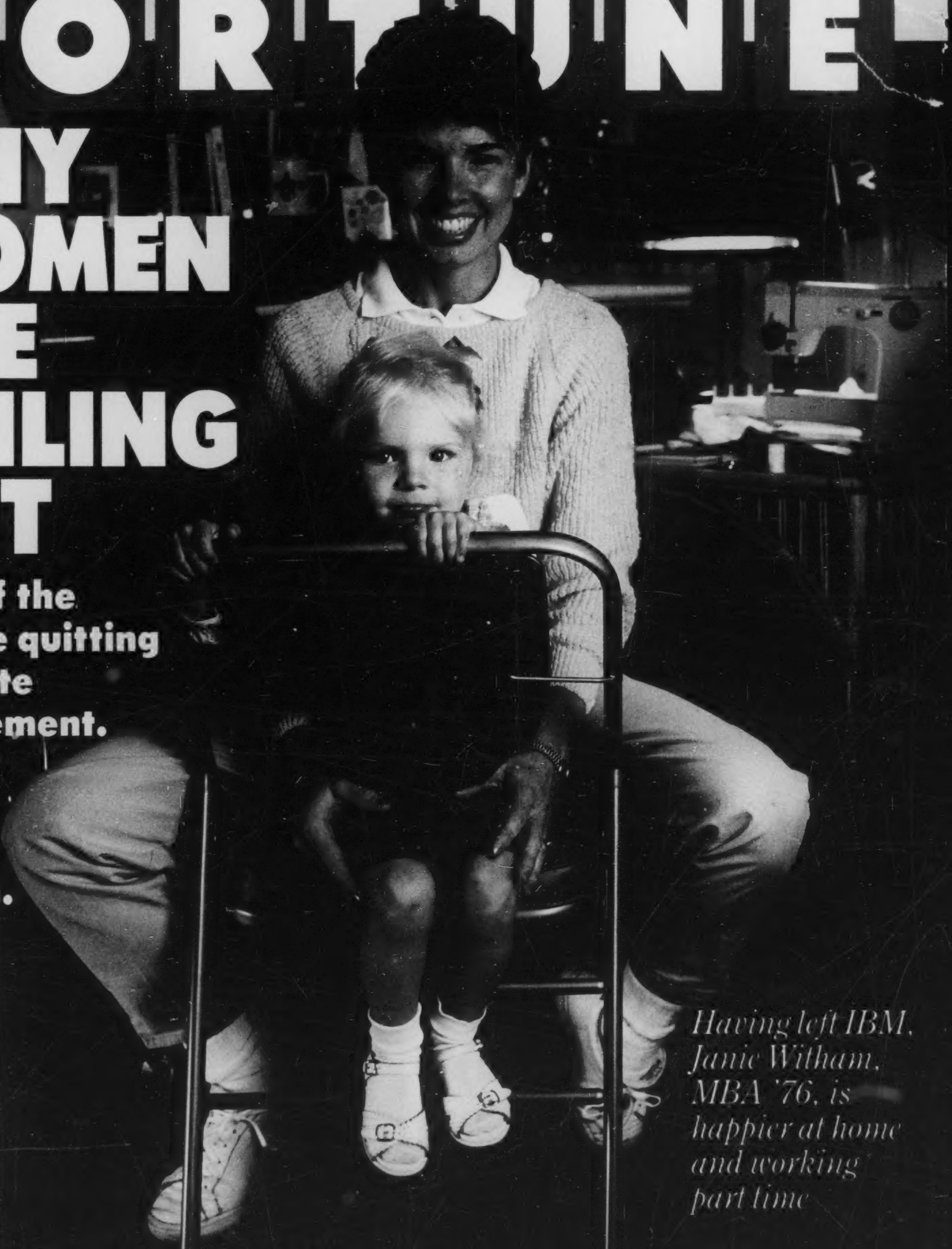
FORTUNE



WHY WOMEN ARE BAILING OUT

Many of the best are quitting corporate management. And not just to have children.

Having left IBM, Janie Witham, MBA '76, is happier at home and working part time

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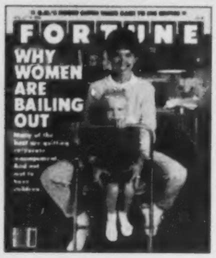
AUGUST 18, 1986 VOL. 114, NO. 4



George Lange's cover subject posed at home in Michigan, where she runs a part-time consulting and computer programming business and cares for daughter Kyle, 2. See page 16.

MANAGING

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One out of four of the best women MBAs, class of '76, have quit the managerial work force. *by Alex Taylor III*

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The chief of the world's largest company talks back to those who think he should worry less about the future and more about the present.

Under the Spell of the Quality Gurus 30
Companies are paying these experts up to $10,000 a day to help improve their products. If only the wise men could agree on how. *by Jeremy Main*

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It took six years, and Gareth C.C. Chang of McDonnell Douglas had to promise a lot more than planes. *by Louis Kraar*

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They had a knockout year—the best since 1981. Still champion: GM.

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THE 50 LEADING EXPORTERS

General Motors was No. 1 for the fourth time, and Boeing's exports soared 62%. The dollar's crushing strength last year made selling overseas remarkably tough, and U.S. exports fell. Yet FORTUNE's 50 delivered their best performance in four years.

AMERICAN EXPORTERS detest a strong dollar, and for much of last year the dollar was at its mightiest in decades. Easily detestable result: Total U.S. exports fell 2.2%. Yet the top 50 exporters overpowered the superbuck and delivered a knockout performance. Their exports increased 9%—the biggest jump in four years.

General Motors was the biggest exporter for the fourth straight year, increasing its exports 22% to $8.9 billion. Ford was No. 2, Chrysler No. 6. All three benefited by producing more cars in Canada, where sales of trucks and big cars rose. The companies rack up exports when they ship parts to their Canadian subsidiaries, which assemble the parts and sell the cars.

The biggest increase among the top ten: Boeing, which led the list in 1981. It boosted exports 62% largely by delivering two-thirds more airplanes last year than in 1984, including three AWACs to Saudi Arabia and 24 Boeing 747s to the booming Asian market. Industry experts credit Boeing's upswing partly to U.S. airline deregulation. That revolution lowered fares and expanded service on overseas routes, forcing many foreign carriers to upgrade or enlarge their fleets. The same forces lifted McDonnell Douglas, which increased exports 25% (for a report on one big deal, see the previous story). Because of the long lead time in plane building, most contracts protect manufacturers from currency swings by specifying payment in dollars.

Four of the six new entries on this year's list are computer companies. Contrary to analysts' predictions, computer sales did not soften overseas. European and Asian manufacturers, gearing up to take advantage of the strong dollar and export to the U.S., needed scientific and engineering technology. Enter Control Data and Prime Computer, major producers of equipment for computer-aided design and manufacturing. Prime Computer (No. 49) gets 47% of its sales from overseas, a greater proportion than any other company on the list. "We want a 50% split between the U.S. and overseas markets," says Joe Gavaghan, a spokesman for Prime. "That way we avoid severe hits from economic swings."

Wang increased exports of computers and Tektronix shipped more work stations, mainly to Europe. Burroughs (No. 37) appeared to lose ground last year, but its 11% export drop was partly self-imposed. To reduce inventory costs overseas, it cut back the amount of equipment it sold to foreign affiliates.

In 16 cases exporters on FORTUNE's list sold less overseas than they had the previous year, compared with 12 who lost ground on last year's list. Worst hit was Archer Daniels Midland (No. 30), which blames the 25% drop in its foreign sales on the strong dollar, falling commodity prices, and increased overseas competition. The company, a food conglomerate that is a major processor of vegetable oils, ran into trouble when Malaysian factories, which are government subsidized, flooded the market with cheap palm oil. Aluminum Co. of America (No. 47) lost 22% of its exports for similar reasons. For the past few years government-subsidized smelters overseas have been glutting the market with cheap aluminum ingots, forcing the price down 16%. Kaiser Aluminum's exports fell so low Kaiser dropped off the list.

A long-term strategy has worked for Dresser Industries (No. 27), a construction-equipment maker: It cultivated the Chinese market and waited patiently for it to grow. Dresser went into the People's Republic in 1972 but had to wait five years for its first order. Last year sales to China boosted Dresser's exports by $150 million.

Despite the success of the top 50 exporters, the U.S. trade deficit last year reached $148.5 billion, up 20% from 1984. That has prompted bills in Congress that would restrict imports—and hurt many exporters. For example, Amoco (No. 41) increased its exports 96% last year by selling Asian companies the chemicals needed to produce polyester fiber. Far Eastern producers sold the material to Asian apparel manufacturers, who export their wares to the U.S. Says Dresser Industries Chairman John Murphy: "We don't need any encouragements. We just need to be reasonably confident that Congress isn't going to pull the rug out from under us with protectionist bills." His reason: "They'd be reciprocated." Now that the dollar has tumbled, U.S. exporters should have a good year unless Congress messes up their act. **—Barbara C. Loos**

THE FORTUNE DIRECTORY OF THE LARGEST U.S. INDUSTRIAL EXPORTERS

RANK '85	'84	COMPANY	PRODUCTS	EXPORTS $000	PERCENT CHANGE 1984-1985	FORTUNE 500 SALES $000	RANK	EXPORTS AS PERCENT OF SALES PERCENT	RAN
1	1	**General Motors** (Detroit)	Motor vehicles & parts, locomotives, diesel engines	8,893,800	22.23	96,371,700	1	9.23	35
2	2	**Ford Motor** (Dearborn, Mich.)	Motor vehicles & parts	6,747,000	11.69	52,774,400	4	12.78	27
3	4	**Boeing** (Seattle)	Commercial & military aircraft	5,861,000	61.86	13,636,000	21	42.98	2
4	3	**General Electric** (Fairfield, Conn.)	Aircraft engines, generating equipment, locomotives	4,020,000	2.16	28,285,000	10	14.21	20
5	5	**International Business Machines** (Armonk, N.Y.)	Information processing systems & products	3,487,000	13.44	50,056,000	5	6.97	43
6	6	**Chrysler** (Highland Park, Mich.)	Motor vehicles & parts	2,977,900	10.01	21,255,500	13	14.01	21
7	9	**McDonnell Douglas** (St. Louis)	Aircraft, missiles, space & information systems	2,668,300	25.06	11,477,700	29	23.25	7
8	7	**E.I. du Pont de Nemours** (Wilmington, Del.)	Chemicals, fibers, polymer & energy products	2,575,000	−2.83	29,483,000	9	8.73	38
9	8	**United Technologies** (Hartford)	Aircraft engines, helicopters, air-conditioning equip.	2,127,069	−10.92	15,748,674	16	13.51	23
10	11	**Caterpillar Tractor** (Peoria, Ill.)	Construction equipment, diesel engines & turbines	1,928,000	9.05	6,769,000	52	28.48	3
11	10	**Eastman Kodak** (Rochester, N.Y.)	Photographic equipment & supplies	1,863,000	−4.41	10,631,000	33	17.52	15
12	12	**Hewlett-Packard** (Palo Alto, Calif.)	Computers, electronic equipment	1,424,000	0.28	6,505,000	58	21.89	8
13	13	**Digital Equipment** (Maynard, Mass.)	Computers, related peripheral equipment	1,373,578	20.91	6,686,316	55	20.54	9
14	17	**Philip Morris** (New York)	Tobacco, beverages, food products	1,100,000	4.46	12,149,000	27	9.05	36
15	14	**Westinghouse Electric** (Pittsburgh)	Generating equipment, defense systems	1,070,020	−5.23	10,700,200	32	10.00	32
16	15	**Union Carbide** (Danbury, Conn.)	Chemicals, industrial & high-technology products	1,065,000	−4.48	9,003,000	39	11.83	28
17	26	**Northrop** (Los Angeles)	Aircraft, electronic equipment	973,600	20.70	5,056,600	71	19.25	11
18	22	**Occidental Petroleum** (Los Angeles)	Fertilizers, agricultural products, coal	967,000	9.64	14,534,400	19	6.65	45
19	16	**Motorola** (Schaumburg, Ill.)	Semiconductors, communications equipment	957,000	−9.89	5,443,000	66	17.58	14
20	25	**Dow Chemical** (Midland, Mich.)	Chemicals, plastics, polymer products	908,000	6.70	11,537,000	28	7.87	39
21	18	**Exxon** (New York)	Petroleum, chemicals	904,000	−10.76	86,673,000	2	1.04	50
22	19	**Monsanto** (St. Louis)	Herbicides, chemicals, polymer products	902,000	−5.05	6,747,000	53	13.37	25
23	23	**General Dynamics** (St. Louis)	Tanks, aircraft, missiles, gun systems	876,700	−0.02	8,410,600	42	10.42	31
24	27	**Raytheon** (Lexington, Mass.)	Electronic defense systems, aircraft	861,000	9.82	6,408,537	60	13.44	24
25	24	**Weyerhaeuser** (Tacoma, Wash.)	Logs, pulp, paperboard, newsprint, lumber	793,000	−8.96	5,205,579	68	15.23	18
26	29	**ITT** (New York)	Logs, cellulose pulp	743,000	0.00	12,714,276	25	5.84	46
27	31	**Dresser Industries** (Dallas)	Pumps, compressors, petroleum & construction equip.	729,300	20.35	4,111,200	91	17.74	13
28	43	**Textron** (Providence)	Helicopters, aerospace & consumer products	717,000	72.36	4,990,500	74	14.37	19
29	28	**Lockheed** (Burbank, Calif.)	Aircraft	693,000	−7.97	9,535,000	36	7.27	41
30	21	**Archer Daniels Midland** (Decatur, Ill.)	Oilseed meals, vegetable oils, flour, corn byproducts	663,427	−24.89	4,738,767	76	14.00	22
31	30	**Allied-Signal** (Morris Township, N.J.)	Aerospace equipment, chemicals, automotive parts	621,000	23.71	9,115,000	37	6.81	44
32	•	**Engelhard** (Edison, N.J.)	Specialty chemical & metallurgical products	616,751	122.08	2,263,697	165	27.25	5
33	34	**Celanese** (New York)	Fibers, chemical & specialty products	596,000	8.96	3,046,000	132	19.57	10
34	36	**Honeywell** (Minneapolis)	Electronic components, control systems, computers	590,000	9.26	6,624,600	56	8.91	37
35	40	**FMC** (Chicago)	Defense equipment, chemicals	589,218	29.97	3,260,847	120	18.07	12
36	33	**Minnesota Mining & Manufacturing** (St. Paul)	Industrial, electronic, health & graphics products	560,000	−2.78	7,846,000	47	7.14	42
37	32	**Burroughs** (Detroit)	Computers, related products	527,600	−10.83	5,037,700	72	10.47	30
38	37	**Sperry** (New York)	Computer systems, electronics, farm equipment	524,900	46.70	5,687,200	63	9.23	34
39	35	**Deere** (Moline, Ill.)	Farm & industrial equipment	524,000	−4.03	4,060,648	96	12.90	26
40	41	**Phillips Petroleum** (Bartlesville, Okla.)	Liquefied natural gas, chemicals, plastics	509,000	13.62	15,676,000	17	3.25	48
41	•	**Amoco** (Chicago)	Chemicals, plastics	474,000	95.87	27,215,000	11	1.74	49
42	45	**Rockwell International** (Pittsburgh)	Electronics equipment, automotive parts	445,000	8.01	11,337,600	30	3.92	47
43	46	**Int'l Minerals & Chemical** (Northbrook, Ill.)	Fertilizers, carbon products	444,300	9.43	1,627,300	224	27.30	4
44	42	**International Paper** (New York)	Pulp, paper & wood products	440,000	3.77	4,502,000	83	9.77	33
45	•	**Control Data** (Minneapolis)	Computer systems & peripheral equipment	426,300	3.70	3,679,700	106	11.59	29
46	47	**Ingersoll-Rand** (Woodcliff Lake, N.J.)	Drills, compressors, pumps, bearings, tools	414,100	2.55	2,637,421	145	15.70	16
47	38	**Aluminum Co. of America** (Pittsburgh)	Ingot & fabricated aluminum	377,800	−22.36	5,162,700	69	7.32	40
48	•	**Wang Laboratories** (Lowell, Mass.)	Computers, related products	358,600	20.86	2,351,700	161	15.25	17
49	•	**Prime Computer** (Natick, Mass.)	Computers, peripheral equipment, software	358,278	33.01	769,673	366	46.55	1
50	•	**Tektronix** (Beaverton, Ore.)	Electronic instruments, graphic computer equipment	352,571	11.47	1,438,082	245	24.52	6
		TOTALS		**70,618,112**		**690,975,817**			

• Not on last year's list.

C8 90

■ WHAT TAX REFORM MEANS FOR PROFITS—AND STOCKS ■

SEPTEMBER 1, 1986
$3.50

FORTUNE

MARKETING MARVELS

ERNEST & JULIO GALLO

Starting with $5,900, these sons of immigrants today sell $1,000,000,000 of wine a year. Julio makes it, Ernest markets it. They're a study in how to crush the competition.

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SEPTEMBER 1, 1986 VOL. 114, NO. 5

FORTUNE
Financial Center
Money & Markets

FORTUNE
Marketing Marvels
Ernest & Julio Gallo

The camera-shy Gallo brothers posed for John Harding's cover photo at their Modesto, California, corporate headquarters. See page 24.

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in racing. Says Cooper: "We should never forget that this sport is built on two four-letter words—hope and luck."

L'EQUIPE
La Vie Claire
wonder
radar LOOK

BAD MARKS—CARI

President Reagan gets a winning jersey from Greg LeMond.

On the up cycle with biker Greg LeMond

■ For the already resurgent bicycle industry, Greg LeMond's historic victory in the Tour de France—the first ever by an American in bike racing's top event—has come like a second wind. Bikers speak of LeMond's triumph in the awed tones usually reserved for religious experiences and natural disasters. Says Bill Wilkinson, deputy director of the Bicycle Federation of America: "This is the biggest thing that's happened in U.S. cycling this century. Our riders are giving cycling an identity in this country." One certain result: greater corporate backing than ever before for cycling as an all-American sport.

Bicycling began its revival earlier this decade, picking up speed after U.S. riders captured nine medals, including four golds, at the 1984 Olympics in Los Angeles. The industry's sales hit $1.5 billion in 1985 as Americans bought 11.4 million bikes, a 13% increase over 1984.

John Mariotti, president of **Huffy Bicycles**, an Ohio company that makes LeMond's racing bikes as well as models that can be found in the racks at suburban grade schools, accounts readily for the acceleration. He says replacement sales have been good, baby-boom bikers are now buying bicycles for their children, and many health-conscious Americans are turning from running to biking. Huffy expects an immediate surge from LeMond's victory. The company recently introduced a bicycle, the Elite, designed with LeMond's participation. The not too elite price: $250.

American riders expect to cash in as U.S. corporations pump money into the sport. A number of American companies played prominent roles in this year's Tour de France, including **7-Eleven** stores, which helped sponsor a team, **Coca-Cola**, **Hewlett-Packard**, and **CBS**. LeMond, who has been racing for a French team, La Vie Claire, says he is looking for American sponsors for a team of his own. The line forms to the right.

Software suit

■ A suit filed against **Lotus Development Corp.**, maker of the best-selling Lotus 1-2-3 program, has thrown the dread shadow of product liability over computer software manufacturers. The suit was filed by **James A. Cummings Inc.**, a Fort Lauderdale builder, which used Lotus's Symphony spreadsheet program to calculate its bid on a $3-million office project for **Florida Power & Light** last year.

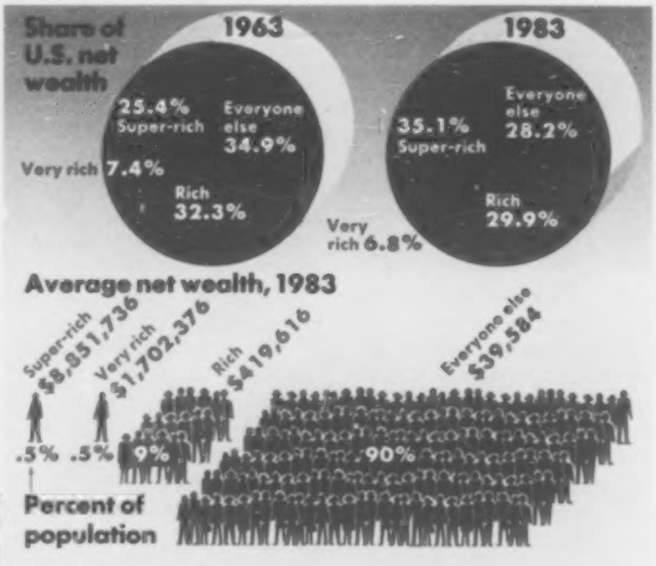
Shortly after it won the contract, Cummings discovered that it had left $254,000 in administrative costs out of its bid. The company blames the omission on a mistake in addition that it says was caused by unclear instructions and a defect in the program. It wants Lotus to reimburse it for the $254,000. A Lotus spokeswoman says there was no defect and Cummings did not follow the program's instructions.

"You can't view software as a toaster that either works or doesn't," says Edward M. Esber, president and chief executive of **Ashton-Tate**, maker of the popular dBASE and other programs. "What a computer product can do is directly related to the skill of the user."

The rich get richer . . . or somebody does

■ Are the rich getting richer, or is somebody getting rich who did not used to be? That question is not addressed in a new study on wealth by the Democratic staff of Congress's Joint Economic Committee. The study says that between 1963 and 1983 the "super-rich," the top one-half of 1% of American families, increased their share of U.S. net wealth from 25% to 35%. The definition of super-rich was odd: Net assets of $2.5 million, the number needed to qualify, is barely enough to support a decent pad in Georgetown, where a lot of Democrats hang out. In calculating wealth, the study ignores

You may be richer than you feel, according to criteria used by Democratic congressional aides in a study of U.S. wealth. They concluded that 0.5% of the population are "super-rich," controlling 35.1% of the nation's wealth.



JOSEPH LERTOLA

STAFF *David Kirkpatrick, Michael Rogers, Patricia Sellers, H. John Steinbreder* the present value of benefits due under Social Security and private pension plans, a major sustenance for the middle class during retirement.

Today's rich were not necessarily rich 20 years ago, points out Dallas billionaire Ross Perot. "Wealth moves into different hands," says Perot, 56, who founded **Electronic Data Systems** with $1,000 in 1962 and sold it for $2.5 billion to **General Motors** in 1984. "Neither [**Wal-Mart Stores** Chairman] Sam Walton nor I, who apparently are America's two wealthiest men, had much money at all 20 years ago."

Executive director Scott Lilly of the Joint Economic Committee says he does not know whether 1983's super-rich were rich or poor in 1963, or why the redistribution of wealth occurred. He believes, though, the reason may be changing demographics. "We have more young families than we did 20 years ago, and young families have less wealth," he says. "We also have more older families, and they generally have more wealth." Other possibilities: changes in inheritance and capital gains taxes and high real interest rates. "Money makes money," says Lilly, "but it makes a lot more money now than almost any other time in recent history."

Signals

■ The House of Representatives failed, by a vote of 276 to 149, to override President Reagan's veto of a bill that would have severely restricted textile imports.

▶ In early August an administrative law judge dismissed Federal Trade Commission charges that **R.J. Reynolds Tobacco Co.** illegally misled the public in an advertisement about the health effects of smoking. He said the ad, which ran last year in national publications, was an "expression of opinion" fully protected by the First Amendment and not "commercial speech" subject to FTC regulations.

▶ Robert E. Brennan, 42, controversial chairman and chief executive of **First Jersey Securities**, resigned his management jobs at the brokerage house. But no one thinks he is really stepping aside: He not only is remaining on the board, but also is sole owner of the firm he founded in 1974. Brennan says his resignation was not provoked by his recurring battles with the Securities and Exchange Commission. He may enter politics. ■

NOW HEAR THIS

■ **JOHN H. GUTFREUND,** 56, chairman of Salomon Inc., on Sumitomo Bank's plan to buy 12.5% of Goldman Sachs & Co.:

"Goldman won't be unique in selling to a Japanese institution, only the first."

■ **ROELOF F. BOTHA,** 54, foreign minister of South Africa, after imposing trade restrictions on black African nations in reprisal for their support of sanctions:

"The blacks will pay, not Australia, the Commonwealth, the European Community."

■ **PRESTON ROBERT TISCH,** 60, president of Loews Corp., on his appointment as Postmaster General:

"I know my mail is delivered on time. I assume everyone else's is also."

FOLLOW-UP

The NFL Gets Off Cheap

■ The National Football League faced a crowded field of business problems, the most urgent being an antitrust suit brought by the upstart United States Football League (FORTUNE, August 4). The field started to clear when a New York federal court jury found against the NFL on one count—that it is a monopoly—but exonerated it on eight others and assessed damages of $1. Under antitrust law, that will be tripled to the grand sum of $3. The USFL vowed to continue the court fight, but was forced to cancel this fall's season. Sports economist Louis Guth, who has consulted for the USFL, says the league's disappearance would strengthen the NFL's hand in two sets of crucial negotiations: with the TV networks, by reducing the glut of football on the screen, and with players, by shrinking the market for their expensive services.

The U.S. and Japan Chip Out a Chip Pact

■ U.S. makers of computer memories cheered when the Commerce Department proposed duties to punish Japanese firms for underpricing memory chips in the U.S., but the American manufacturers called for further government measures to help them compete in Japan (FORTUNE, May 12). At the end of July President Reagan announced he was suspending most of the proposed duties as part of an unprecedented five-year bilateral agreement. In return the Japanese government will help police the price of exports and take steps to help U.S. chipmakers increase their share of the Japanese market, now around 9%. But will the steps be effective? "Japanese companies basically control the market there, and they have no incentive to cooperate," says Michael Borrus, an industry expert at the University of California at Berkeley. For U.S. companies the big gain will be at home, where at least a short respite from aggressive Japanese pricing is likely.

Bright Hopes for Movie Makeup

■ Film owners wanted **Color Systems Technology Inc.** to turn old black-and-white movies into newish-looking color videos, and the price of the Los Angeles company's stock doubled to $10 a share after its first public offering last year (Companies to Watch, March 3). Coloring movies has become increasingly controversial. A bit of adornment may not be unseemly for a wacky comedy like *The Absent-Minded Professor*, one of CST's early projects, but critics worry about debasing classics like *Citizen Kane*. Still, contracts keep rolling in. The company has orders to color up to 100 movies for MGM, 16 Shirley Temple movies, and miscellaneous TV serials. It plans to acquire and begin coloring its own library of films. Neither esthetic quibbles nor a net loss of 99 cents a share in the 12 months ended March 31 have discouraged investors. CST stock recently sold at $26 a share. A secondary offering is imminent. **— David Kirkpatrick**

HOW GALLO CRUSHES THE COMPETITION

Julio pursues the perfect grape. Ernest has written the book on selling the wine. The 300-page manual tells distributors how to stack shelves (put impulse items above the belt) and win favor with retailers (save off-color jokes for peddling pornography).

■ *by Jaclyn Fierman*

PEACOCKS ROAM free on the great expanse of lawn at the 250-acre E.&J. Gallo Winery in Modesto, California. So do guinea fowl, quail, and peahens. But don't let the scenery mislead you. The menagerie is a most uncharacteristic indulgence by the world's largest wine producer. When it comes to business, the brothers Ernest and Julio Gallo brook neither waste nor weakness. Just ask the scores of companies, large and small, that over the past five decades have made the mistake of venturing onto their turf.

Age may be weakening their hearing and sight, but Ernest, 77, and Julio, 76, have not lost their desperate will to dominate. Nor their unerring ability to do so. Though their illustrious careers are drawing to a close during the toughest time for U.S. wine makers since Prohibition, their corporate offspring continues to thrive.

What is Gallo's secret? "A constant striving for perfection in every aspect of our business," says Ernest. That may sound self-serving, but it is in large part true. Plainly put, Ernest and Julio are better at the nuts and bolts of the wine business than anyone else in the world. They are more resourceful, more thorough, more exacting. And they are not afraid to exercise their power over grape growers, distributors, or anyone else. "I sometimes feel like an Olympic runner who gets mad at his coach," says David Terk, an independent distributor in Abilene, Texas. "Gallo pushes so hard you end up working more than you want."

Not that the Gallos face no challenges. The most unusual by far comes from their younger brother, Joseph, 66. In a drama worthy of the wine-country soap opera *Falcon*

Julio Gallo, *still a hands-on manager at 76, tramps through the vineyards almost daily.*

PHOTOGRAPHS BY JOHN HARDING

Crest, Joseph is suing for a one-third interest in the winery. He claims that the winery is an outgrowth of their father's wine-grape business and that his big brothers cheated him out of his rightful inheritance.

Ernest and Julio's other problems are more mundane. The national obsession with fitness and the crackdown on drunk driving have had a sobering effect on wine producers, Gallo included. Americans drank 6.5% less table wine in 1985 than in 1984 and will probably cut consumption 5% more this year, according to ***Impact,*** an industry newsletter. The wine industry's smartest response to the new abstinence is coolers, fruity beverages with a splash of wine and roughly the alcohol content of beer. Gallo, in typical fashion, has outsmarted everyone: Its year-old cooler, Bartles & Jaymes, is No. 1.

ANOTHER CHALLENGE comes from another trend among wine drinkers—the swing to pricey table wines made from the finest grapes. Americans are demanding better quality than ever before, and premium wines have raised their share of the $8.3-billion-a-year business from 8% in 1980 to 20% today. Gallo sells more premium wine than any other producer, but its growth in this category is limited because it lacks snob appeal. The name Gallo, which means rooster in Italian, is associated with screw tops and bottles in paper bags. The brothers are battling to upgrade their image with the same vengeance they bring to every war they wage.

For now they can take heart in making the most, if not the best, wine in the world. The joke goes that Gallo spills more than anyone else sells. The truth is not far off. Last year Gallo shipped over 150 million gallons of wine, according to the *Gomberg-Fredrikson Report,* an authoritative industry newsletter. Its most popular brands are Chablis Blanc, Hearty Burgundy, Carlo Rossi, and other low-priced jug wines, which together account for a commanding 31% of the volume in that end of the market. The brothers also sell more champagne (André), brandy (E.&J.), sherry, vermouth, and port than anyone else. All told, they buy roughly 30% of California's annual wine-grape harvest and produce one of every four bottles of wine sold in the U.S.

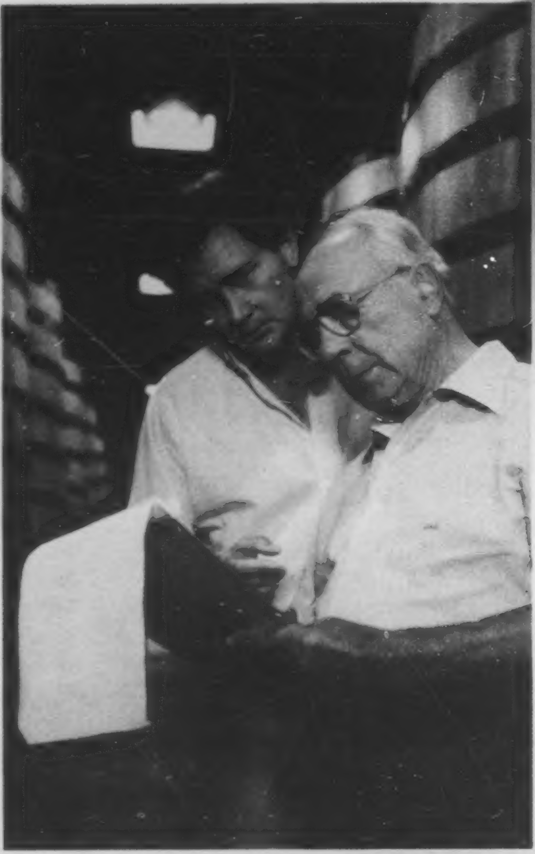
They also squeeze profits from the wine business while others come up dry. The winery is privately owned by Ernest, Julio, and their fecund families—between them the brothers have four children, 20 grandchildren, and six great-grandchildren. Three children, a son-in-law, and four grandchildren work for the company, but share little of Ernest and Julio's power.

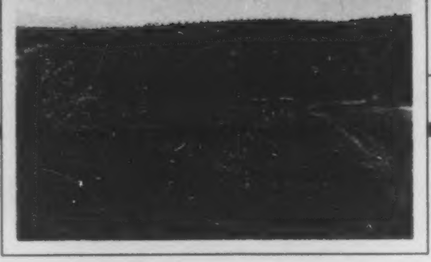
The Gallos talked to FORTUNE at length about their business, the first time in over a decade that they opened up to a major publication. (Ernest, who is as timid as a fighting cock, says he fears one thing: reporters.) But they keep financial details tightly corked. Based on interviews with dozens of current and former employees, industry experts, and competitors, FORTUNE estimates that Gallo earns at least $50 million a year on sales of roughly $1 billion. By comparison, Seagram, the nation's largest distillery and second-largest winery, booked roughly $350 million in wine revenues last year and lost money on

Ernest Gallo, *77, crowds his office with statues of the humble rooster, called* gallo *in Italian. The company's chief marketer has plenty to crow about.*

In Quest of a Greater Grape

Perfecting the quality of Gallo wines has been Julio's lifetime goal. That's a sherry he's holding at right. The company's best wines come from grapes grown in California's lush Sonoma County, which Julio visits frequently in the company helicopter with his son Robert (seated next to him). Below, Julio and Robert peruse plans for developing additional prime acreage. The wines age in huge oak barrels (far right), where Julio and J. B. Olyphant, a vice president, review inventory data.





its best-selling table wines, Paul Masson and Taylor California Cellars. Gallo's other main competitors, Almadén, owned by National Distillers & Chemical Corp., and Inglenook, owned by Heublein, are making money, but not much.

Private ownership and staggering volume contribute to Gallo's success. The company can wrest market share from competitors by settling for paper-thin margins and occasional losses that stockholders of publicly held companies would not tolerate for long. Moreover, Gallo does not have disparate claims on its resources and can devote all its energy to wine. "Unlike our major competition," says Ernest, "wine is our only business."

No other company could afford to replicate the degree of vertical integration Gallo has built up over the years. The brothers own Fairbanks Trucking Co., one of the largest intrastate truckers in California. Its 200 semis and 500 trailers are constantly hauling wine out of Modesto and raw materials back in—including sand from around the state and lime from Gallo's quarry east of Sacramento. Alone among wine producers, Gallo makes bottles—two million a day—and its Midcal Aluminum Co. spews out screw tops as fast as the bottles are filled.

Most of the country's 1,300 or so wineries concentrate on production to the neglect of marketing. They entrust their fate with consumers to independent distributors who work for several competing producers. Most distributors, in turn, figure their job is done once they take orders and make deliveries to grocery and liquor stores. Gallo, by contrast, participates in every aspect of selling short of whispering in the ear of each imbiber. The company owns its distributors in about a dozen markets and probably would buy many of the more than 300 independents who handle its wines if laws in most states did not prohibit doing so.

Gallo's power elicits emotions from admiration to hate from just about everyone touched by it. "The hate part," says a Sonoma Valley grower, "is getting rejected by Gallo at the crusher"—the place where growers bring their grapes to be graded, sold, and eventually crushed into juice and fermented. Distributors feel hatred or something near it if they are unceremoniously dumped, as many have been for failing to satisfy Ernest's demanding requirements. Competitors hate being singled out as the next rival to be vanquished. Says a cowed Stuart Bewley, 33, who helped start California Cooler five years ago: "They aim all their guns at once." Bewley's brand was the market leader in wine coolers until Gallo stormed into the business. Bewley sold California Cooler to Brown-Forman last year but still manages the operation.

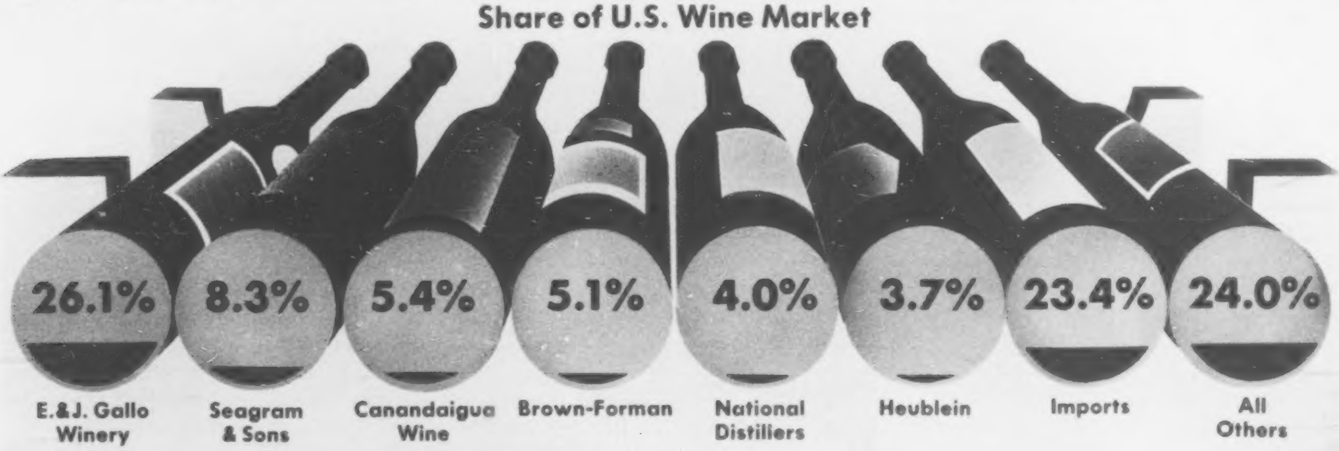
Yet even competitors thank the Gallos for expanding the wine market. While the Gallos may not make the world's best wine, they have lifted the U.S. standard for low-priced table wine well above that served in Italy or France. Says Edgar Bronfman Jr., 31, president of the House of Seagram: "I have tremendous respect for the Gallos. They have created an environment in which we have to learn to make money."

E.&J. Gallo Winery is a divided kingdom. Julio is president and oversees production. Big brother Ernest is chairman and rules over marketing, sales, and distribution. The two steer clear of each other, conducting business on separate floors. "We don't have everyday contact," says Julio, whose domain is the first floor at the neoclassic headquarters some natives call Parthenon West. Ernest holds court upstairs. The brothers mesh well despite the division: Julio's goal is to make more wine than Ernest can sell, Ernest's to sell more than Julio can make.

Thick-fingered and full-faced, Julio aptly describes himself as a farmer at heart. "I like to walk in the fields with the old-timers," he says. "I feel at home in the vineyards." Make no mistake, though, Julio is a patrician farmer, dressed not in overalls and work boots but in linen trousers and slightly scuffed wing tips. His office is elegantly appointed, with a solid oak desk and inlaid wooden artworks depicting harvest scenes in the French countryside. His modern ranch house down the road from the winery is festooned with images of grapes, from jade carvings along the walls to the silverware and place mats on his table.

ERNEST CONDUCTS business in a setting cluttered with mementos not from the fields but from the world of selling. He has a framed *New Yorker* cartoon that shows two couples drinking wine in a restaurant. The caption reads: "Surprisingly good, isn't it? It's Gallo. Mort and I simply got tired of being snobs." Expressions of fierce pride abound, from the

REPORTER ASSOCIATE *Kate Ballen*



Keeping Competitors in the Cellar

Gallo, with 26.1% of the U.S. market, sold more wine last year than its next several competitors combined. Imported wines captured 23.4% of U.S. sales in 1985. But imports have slipped lately due to the weakened dollar, news of contaminants in a few brands, and the popularity of wine coolers.

Gone on VacATion to N.Y.
BARTLES & JAYMES
BARTLES JAYMES
BARTLES & JAYMES WINE COOLER CO.
2.69
Premium

Grabby retail displays *are a Gallo hallmark. Here salesmen set up cardboard replicas of Bartles (in the rocker) and Jaymes (holding the sign).*

Gallo-green crushed-velvet couch to an ambitious collection of glass, metal, and ceramic statuettes of *galli.* Paler, grittier, and less courtly than his brother, Ernest cares little for social or decorative amenities. "We don't socialize much," says the more affable Julio. "There's not much to talk about."

Ernest wouldn't waste time schmoozing anyway. He would rather interrogate than converse. He bridles when questioned and has the habit of answering with questions of his own. He is after all the information he can get, and is intolerant when someone does not deliver. "If you try to cover up, he'll expose you," says George Frank, who directed Gallo's East Coast sales for three decades and retired last year.

Ernest's employees toil much harder than most because they know the boss will try to catch them off guard. "I never knew if he was checking on the marketplace or on me," says Frank. On frequent trips around the country, Ernest orders a distributor to pick him up at eight in the morning, map in hand. Mindful of neither distance nor direction, he points to several towns where he wants to check the positioning of his products in stores. "Ernest doesn't want you to take him on a tour," says Laurence Weinstein, a distributor in Madison, Wisconsin. "If he sees you turning left, he'll tell you to turn right."

The distributors behave more like family members than independents because most owe their success to the winery. "Ernest picked distributors who were hungry," says Frank. "They knew if they failed with Gallo, they might be out on the street." Once Ernest chooses a distributor, he or his troops plan strategy with him down to the last detail, analyzing traffic patterns in every store in the district and the number of Gallo cases each should stock.

ERNEST ENCOURAGES distributors to hire a separate sales force to sell his products alone. When Texas distributor David Terk decided it wasn't worth the extra money to employ a special Gallo team, he and Ernest severed ties. Terk eventually came around to Gallo's way of thinking and has been reinstated. "If you follow Ernest's advice," Terk says, "he'll make you rich." Ernest also tries to persuade distributors to sell his wines exclusively. "We never told distributors to throw out Gallo competitors," says Frank. "But we might have asked them how they planned to do justice if they carried two competing brands."

The Federal Trade Commission objected to that friendly persuasion ten years ago, charging Gallo with unfair competition. Gallo signed a consent order that prohibited it from punishing distributors for selling competing brands and from requiring them to disclose sales figures. The FTC set aside the order three years ago after Gallo argued that the market had grown more competitive and that the order was giving other wine makers an unfair advantage: They were free to set up exclusive deals with distributors.

Now that Gallo can regiment its distributors once again, it rarely hears a grumble out of them. One bold exception: Ohio distributor Bernard Rutman sued Gallo last year, alleging that the company violated antitrust

laws when it dumped him for no good reason after 40 years of loyal service. Without Gallo products, which Rutman referred to as "call items" or "door openers," he lost several retail accounts. Rutman claimed that Gallo's action had reduced competition because he could no longer afford the sales force needed to sell a broad range of products. Gallo fought the charges and won, arguing that it was not the winery's responsibility to open doors for competitors. Rutman is appealing.

Ernest finds distributors who will open doors for *him*. Aggressive salesmen are crucial to Gallo's success because they are the winery's link to retailers, and retailers have the last crack at influencing consumers. "Seagram," concedes Edgar Bronfman Jr., "has typically pushed everything to the distributor and left it to him to deal with the stores." Ernest makes certain that his distributors deal with the stores like no others. They build floor displays, lift cases, and dust the bottles on the shelves. "If you turn your back on a Gallo salesman," says a manager of a San Francisco liquor store, "he'll turn the place into a Gallo outlet."

Gallo leaves nothing to chance—and very little to the imagination. Required reading and rereading for new salesmen is Gallo's 300-page training manual. More graphic than the *Kamasutra*, it describes and diagrams every conceivable angle of the wine business. "As a sales representative of Gallo wine," the tome begins, "you are the man that Ernest and Julio Gallo depend on to sell retailers the merchandising ideas that sell Gallo wine to consumers."

What follow are 16 dizzying chapters, each ending with a quiz. A section on how to display Gallo products in stores spells out which items to place at eye level (the most highly advertised ones) and which to position above the belt (impulse items). Another details how much shelf space Gallo brands should occupy (seven feet on each of five shelves, the largest area the eye can easily scan). Maintaining shelves the Gallo way requires a ten-point checklist (No. 7: "Wherever there is a decided price advantage in buying a larger size, the larger size should be placed to the right of the smaller size."). The "complete sales call" would be incomplete unless all ten steps from another checklist were taken (No. 6: "It's time to think . . . You should know what you'd like to say and how you're going to say it to *this* retailer.").

Among the trove of sales tips: "An off-color joke may be great if you're selling pornography, but it's a little difficult to use this opener . . . to sell the retailer on cold-box placement for wine." The retail world is made up of six types of buyers, the manual explains. They range from "the silent type (he just listens)" to "the aggressive type (he's looking for a fight)." If you run into the silent type, "avoid embarrassing questions." When you meet up with an aggressive one, "let him win the battle, but you win the war."

Gallo hasn't lost a war yet. Even Coca-Cola, no wimp at marketing, surrendered in 1983 after six years of butting barrels with the wine Goliath. When Coke got into the wine business in 1977, consumption had been rising 7% a year. But that trend soon fizzled. The profit margins Coke was used to in soda never materialized for wine, not even close. By the time Coke sold its Wine Spectrum unit to Seagram for more than $200 million, it had overpromoted and underpriced its Taylor California Cellars.

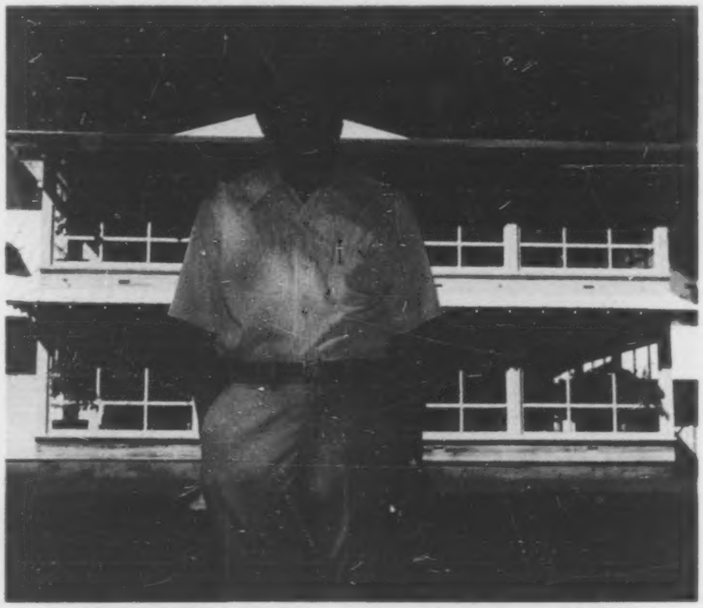
Pleasing the plebeian palate in Podunk used to be all that mattered in the wine business, and no one did that better than Gallo. But today even Podunk has wine snobs. Having to prove themselves all over again is a nasty twist of fate for the Gallos, who have devoted decades to upgrading everyday drinking wine for Americans. "We have varietals we think are the very best," Julio insists. Not Chateau Lafite, to be sure, but certainly respectable. Some wine connoisseurs compare Gallo's varietals to competing brands that sell for twice as much.

The screw-top stigma hurts, but the Gallo brothers learned early how bitter the wine business can be. They got their first taste as young boys, toiling in their father Joseph's Modesto vineyard in their spare time. After Julio finished high school and Ernest graduated from Modesto Junior College, they worked full time for their father. "He believed in hard work and no play," says Julio. "None at all."

An immigrant from the Piedmont region in northwest Italy, Joseph Gallo was a small-time grape grower and shipper. Prohibition did not put him out of work: The government permitted wine for medicinal and religious use. But the Depression took a tragic toll. The Gallo business almost went under, and in the spring of 1933 Joseph shot his wife and reportedly chased Ernest and Julio across his fields waving a shotgun. After they escaped, Joseph killed himself. Ernest is reminded of the tragedy daily: His childhood residence, a stucco house with a pillared porch, is on the road from the winery to his present home, a modest bungalow with a security guard out front. Julio relived the horror years later when his second son, Philip, then a teenager, committed suicide.

Prohibition ended the same year that their parents died, and the Gallos, then in their early 20s, decided to switch from growing grapes to producing wine. Problem was, they had no idea how to make the stuff. They found instructions in two thin pamphlets in the Modesto Public Library and, with $5,900.23 to their names, burst out of the post-Prohibition starting gate with 600 other newly formed wineries. "My confidence," recalls Ernest, "was unlimited."

Finding customers was the next hurdle, and Ernest was born with an instinct for that. A Chicago distributor wrote to newly licensed California wineries, inviting them to send him samples. Ernest went the



Joseph Gallo *says he is entitled to one-third of his brothers' wine business.*

Ernest's sons, *David (left) and Joseph, work with him in marketing.*

Julio's son-in-law, *James Coleman, chats with Julio's son Robert.*

extra mile. He boarded a plane for Chicago, met the man at his office, and sold him 6,000 gallons at 50 cents a gallon. Ernest continued east and sold the rest of the first year's production for a profit of $34,000. The Gallos initially sold wine in bulk to bottlers, but in 1938 they started doing their own bottling under the Gallo label, a far more profitable venture. Sales grew unabated for years.

"Success in life," says the insular Ernest, "depends on who your parents were and what circumstances you grew up in." Hard work was Joseph Gallo's ethic and it became Ernest's as well. Driving himself and others is a survival instinct for Ernest. But perhaps because his father ultimately failed, Ernest also believes that hard work alone is not enough. "It boils down to luck," he says of his and Julio's success. "Circumstances could have been otherwise."

AS LUCK would have it, the Gallos had their first phenomenal success with a high-alcohol, lemon-flavored beverage they began selling in the late 1950s. A radio jingle sent the stuff to the top of the charts on skid rows across the country: "What's the word? Thunderbird. How's it sold? Good and cold. What's the jive? Bird's alive. What's the price? Thirty twice." But Thunderbird also left Gallo with a gutter image it has been hard pressed to shake.

Each in his own way, the Gallos are fighting to change that. Julio may be more easygoing than Ernest, but he is no pushover when it comes to getting what he wants from growers. Says Frank, Gallo's former East Coast executive: "He works with grapes as if he's pursuing the Holy Grail." With the help of graduates from California's top oenology schools, Julio has experimented with hundreds of varieties over the years. In the 1960s he made an unprecedented offer of 15-year contracts to growers who would rip up their vineyards and replant better grapes. Julio got his better grapes, and he also got an assured supply of his most essential raw material. Unlike small wineries, which grow the bulk of their grapes, Gallo buys more than 95% of the grapes it crushes.

Growing for Gallo is a mixed blessing. The 1,500 Gallo growers know they have a home for their grapes every season because Gallo's needs are so vast. But they are never sure how much they will get paid until they get to one of Gallo's three grape-crushing and fermenting operations: the Frei Brothers winery in Sonoma County, which Gallo bought from the Frei family in 1977, or the Livingston and Fresno plants in San Joaquin Valley. If grapes do not meet standards for Gallo's top-quality wines—handpicked, the right color, the proper acid and sugar balance—the winery downgrades them for use in other products and slashes the price. The *Healdsburg Tribune*, a newspaper in Sonoma County, has condemned the Gallos and called for state regulation of grading. An editorial claimed growers had been victimized by "sudden devaluation or outright rejection of their grapes, always with the company's take-it-or-leave-it attitude . . . Most growers have little choice but to take it."

One who chose not to take it was Steven Sommer, a Sonoma grower who filed a grievance with the California Department of Agriculture in 1984 after Gallo downgraded most of his 50-ton harvest from $475 a ton to $275. Gallo claimed the grapes were off-color and therefore would not yield flavorful wine. "It was just the way the sun was shining on them," Sommer insisted. The state ruled in Gallo's favor: Since the growers had no written contract stating otherwise, Gallo had the right to judge grapes however it chose. Sommer's protest served a purpose, though. Gallo now gives one-year contracts in Sonoma County that spell out its standards. "The old-timers always did business on a handshake," says Julio. "The young growers want things in writing." Sommer, 36, has gone into business for himself, producing wine from the grapes he grows.

JULIO INSISTS on rigorous standards in Modesto, where all Gallo products are blended, bottled, and tasted every morning at 11 o'clock. Gallo was among the first producers to store wine in stainless steel containers instead of the usual redwood or concrete casks that can breed bad-tasting bacteria. Like giant thermos bottles, tanks at Gallo's three crushers and at the Modesto headquarters protect 300 million gallons of wine from the searing heat. Passers-by could easily mistake the Modesto plant for an oil refinery. There's no sign anywhere that says Gallo. "We know where the place is," Julio explains.

The refinery image is a sore point with Julio. "It was never my ambition to run the biggest winery in the world," he says. "It doesn't impress me at all." Unlike other wineries, Gallo offers no tours to the public. Rather than lead the rare visitor through the huge outdoor storage area, Julio prefers to

sweep him underground to see his new oak aging cellar. Gallo dug the crypt in deference to those who prefer their wine aged and dated, not bottled in an unsexy jug and blended to taste exactly the same today as last year and the year before. Some three million gallons of wine can be aged in the cool cellar, in row upon row of 12-foot casks, made mostly from Yugoslav oak.

But changing Gallo's image is really an aboveground proposition, and Ernest is throwing more than $40 million into advertising this year to get the quality message to consumers. A new television campaign could be powerful enough to finally overcome the Thunderbird association. It features sensuous, slow-moving images of ethnic weddings, sunlit vineyards, and crystal goblets, to a mesmerizing score by Vangelis, the Academy Award–winning composer for the movie *Chariots of Fire.*

The new image is being crafted by Hal Riney, a San Francisco ad man with an agency bearing his name. Riney is also the genius behind those fictional farmers, Frank Bartles and Ed Jaymes, who told us in their early ads about how they put their orchard and vineyard together to make a premium wine cooler. "So Ed took out a second on his house," says poker-faced Frank, "and wrote to Harvard for an MBA." The pair was recently seen in New York City eating "big doughnuts" (the locals call them bagels).

Bartles & Jaymes has hurtled to the top of a high heap—there are over 100 coolers on the market. Cooler sales reached almost 40 million cases last year, and Marvin Shanken, publisher of *Impact,* predicts that consumption could swell to 90 million cases and constitute a third of the total wine market by 1990. The wine in most coolers is made from the cheapest grapes, and initially the mix was far more profitable than straight wine. But in typical fashion, Gallo devastated everyone else's profit margins when it entered the war. "We've had to double our ad spending and put our products on promotion a lot more often," says California Cooler's Bewley.

Another major accomplishment for Hal Riney has been getting along with Ernest Gallo. Before Riney, scores of agencies tried and failed to hack Ernest's ways. That kind of turnover is legendary at Gallo. A few employees, like Frank, stay forever, but many leave after a few years with whatever tricks they've managed to learn from one of America's best marketing minds. A longtime Gallo executive puts his finger on a problem this has caused: "There's a whole level missing at Gallo in terms of age."

Third-generation *employees so far all hail from Julio's side of the family.*

THE GALLOS will not tolerate being crossed, even by family. Their battle with brother Joseph, who raises cattle and grows grapes, started when Joseph began selling cheese under the Gallo name. Ernest and Julio claimed Joseph was violating their trademark and, they say, offered him a royalty-free license to use the name. When Joseph refused, Ernest and Julio sued him for trademark infringement.

Joseph's lawyer says his research for that suit led to the discovery that the trademark dated back to the father's business. He then researched the father's estate to determine whether Joseph, who was 13 when his father killed himself, was an heir to the trademark. That search, the lawyer says, led to the discoveries that Joseph had inherited an interest in the father's business and that E.&J. Winery is an outgrowth of that business. Ernest and Julio say Joseph's claim is ridiculous, and that they started the winery with their own savings.

Ernest tries to recruit Ivy Leaguers and young MBAs—nearly all of them men. "We look for creativity, compatibility, and a sense of urgency," he says. But he doesn't give the whiz kids room to grow. Gallo graduates say the most frustrating thing about Ernest is his insistence on keeping everything secret. "I never saw a profit-and-loss statement," says Diana Kelleher, 39, who was marketing manager for several products in the early Eighties and one of the few women executives at Gallo. "Ernest wouldn't tell anyone the cost of raw materials, overhead, or packaging." Kelleher now runs a Los Angeles consulting firm.

Julio has begun to pass his scepter: His son, Robert, 52, and son-in-law, James Coleman, 50, oversee much of the day-to-day production. Ernest refuses to give anyone an aerial view of his part of the kingdom. Both his sons, David, 47, and Joseph, 45, work on his side of the business, but neither is heir apparent. Though both graduated from Notre Dame and Joseph has an MBA from Stanford, they lack their father's drive and authority. Those who have worked closely with the family say that Joseph's judgment is uneven and David's behavior occasionally bizarre. He habitually pokes his eyes and nose with paper clips.

But if Ernest's sons are less prepared to run Gallo than they should be, the problem may have more to do with his management style than their deficiencies. Ernest claims he wants people to be daring, yet his intimidating manner usually produces sycophants. He governs by a committee consisting of his sons and a handful of top executives. On most policy matters, Ernest goes around the table and asks each man for his opinion. But he usually fails to elicit their best because they try to second-guess him. Says Diana Kelleher: "The committee's need to please Ernest limits its effectiveness."

Ernest cannot bear to relinquish control. The deep-rooted need to hold on is understandable: In his world, events can get so wildly out of control that they produce the tragedies of his youth. Call his style shortsighted, even paranoid. Rest assured, though, Ernest has figured out how to sell Gallo products from the grave. He probably is well along on a manual outlining every conceivable war that could break out in the wine world and ten steps to win each one. ◼

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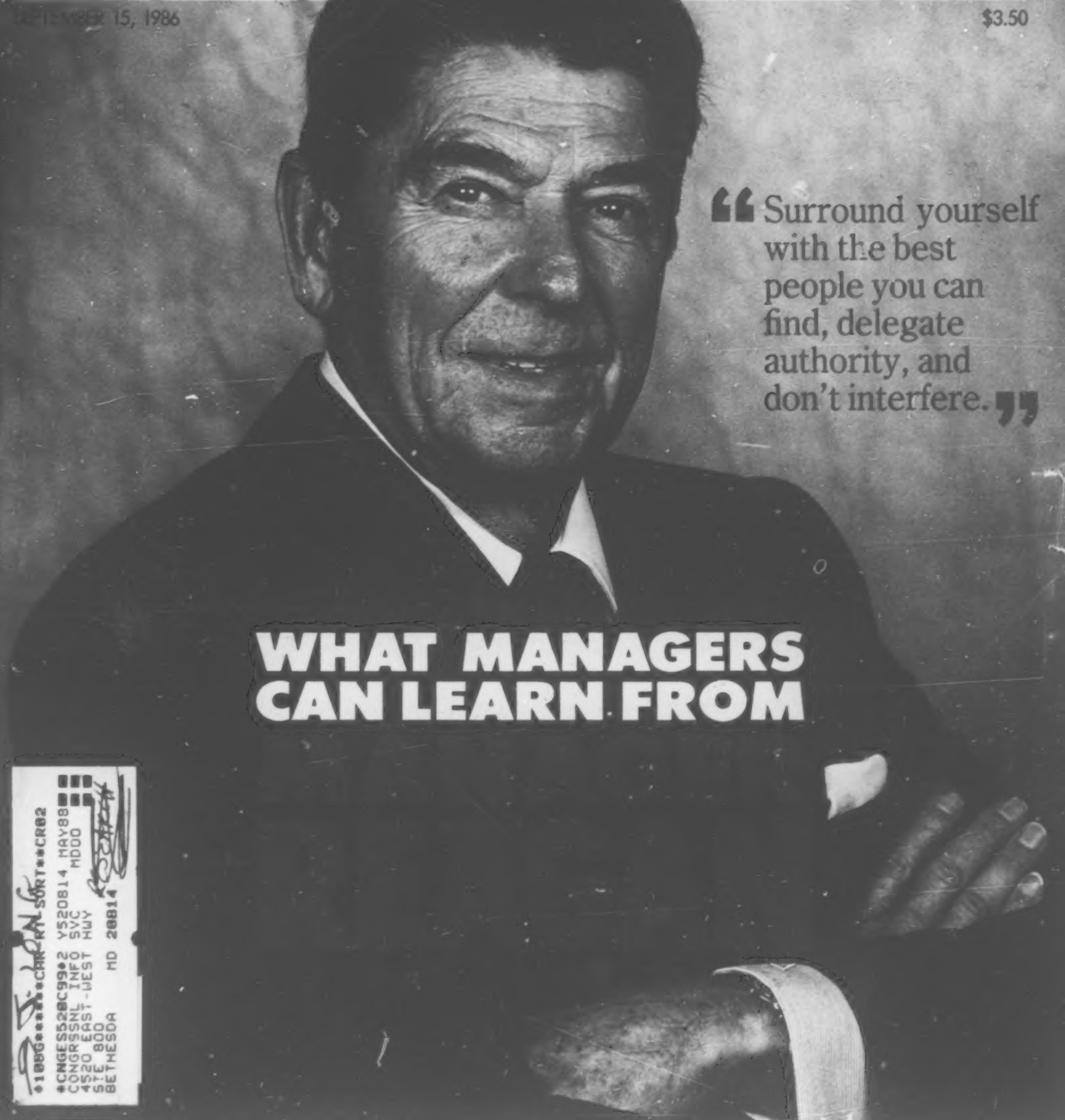

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Competition

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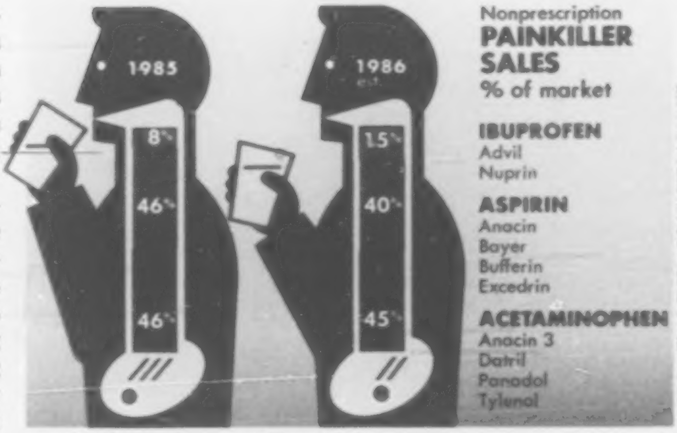
curities law," says John C. Coffee Jr., a professor of securities and criminal law at Columbia University. "The question is whether you apply it against a firm that took steps to prevent insider trading."

Coffee says that while Lehman or other firms Levine worked for may have discouraged insider trading, the courts will have to decide if those firms are liable for not monitoring their employees or not doing enough to prevent the insider trading. Says Coffee: "While it may not be good etiquette to sue a major investment bank, this could be a signal to other takeover bidders."



Advil, Nuprin, and other ibuprofen products are heading toward 15% of the over-the-counter painkiller market by the end of the year. The products listed alphabetically in each category are leading brands.

New headaches in the painkiller market

■ A major new battle is about to begin in the $1.7-billion-a-year market for over-the-counter painkillers. On September 24 the Food and Drug Administration will open up the ibuprofen market that **American Home Products** and **Bristol-Myers** have had to themselves for two years. No one ever said American Home's little brown Advil tablets or Bristol-Myers's yellow Nuprin cured all aches and pains better than aspirin or Tylenol, but some drug industry experts thought smart marketing would give ibuprofen one-third of the market by 1990.

It has a way to go. By yearend ibuprofen will have swallowed about 15% of the market, stealing share primarily from aspirin (see chart). American Home and Bristol-Myers launched their products with giant advertising budgets, and neither has yet made much money on the drug. But many companies, including **Johnson & Johnson**, **Sterling Drug**, and **Upjohn**, think ibuprofen will help them grow in a fairly mature industry and are moving in to compete.

Most of the entrants will avoid going head-to-head with Advil and Nuprin. Instead they will advertise their products as menstrual-pain relievers, a $65-million market. "You're bound to be No. 3 or worse if you enter the general painkiller market two years late with no point of difference," says Robin Mills, 42, president of Sterling Drug's Glenbrook Laboratories. "By going after a segment, you can be No. 1." Glenbrook's new ibuprofen-based Midol 200 has a name-recognition advantage; the company's aspirin-based Midol is the leader in the cramp-relief market.

The new ibuprofen pills will vary in shape and color but otherwise have the same ingredients and dosage as Advil and Nuprin. Success will come down to marketing. American Home beat Bristol-Myers to market in 1984 and spent more on advertising. Today Advil outsells Nuprin by around 3 to 1. Last year about $35 million in Advil advertising produced retail sales of more than $85 million; Bristol-Myers's estimated $25 million brought sales of only around $35 million for Nuprin. Both companies are expected to boost ad budgets. Says Oleh Denysyk, who tracks the drug industry for Charles H. Kline, a New Jersey consulting firm: "These companies spent their guts out the first two years. Now they're going to do it all over again."

Cloneless Macintosh

■ **IBM** maintains a tight grip as the No. 1 supplier of personal computers for big corporate users, though El Cheapo PC clones keep nipping at IBM's share of the $9-billion-a-year market. **Apple Computer**'s fast and versatile Macintosh hangs in there as a distant No. 2 among corporate PC buyers, with no pesky Mac-clone in sight. Last year a mere one-third of the Macintoshes sold reached businesses. This year the number sold to business users has jumped to 60%. Says David Norman, chief executive of computer retailer **Businessland**: "The buyers aren't the people in T-shirts and jeans anymore, but guys in blue suits."

OFT
MICROSOFT

Gates and Sculley at unveiling

In the face-off with El Cheapo, Apple's Macintosh has a fast draw: The price of a Mac may be higher than a PC clone, but the Mac is so easy to use that training costs are low. Besides, Apple rewards dealers with good margins, while those on a clone tend to be as paltry as the price. In this confused market, dealers back Mac any chance they get.

Impressed by the Macintosh's office inroads, software developers have loosed a flood of new business products for the machine. **Ashton-Tate**, whose dBASE program is the leading data processing package in the PC market, recently introduced an Apple version of dBASE. **Microsoft**, which already sells more than half of all software used on the Macintosh, has just released a $295 package aimed at the small-business market. The new package, unveiled by Microsoft Chairman Bill Gates, combines word processing, data management, a spreadsheet, and a program for telecommunications.

At Apple headquarters in Cupertino, California, the gloom that has prevailed through a couple of turbulent years is lifting along with profits. They sank last year to $61 million on

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THE HIGH-TECH RACE

Bell Labs breakthrough: Chips that work like the brain

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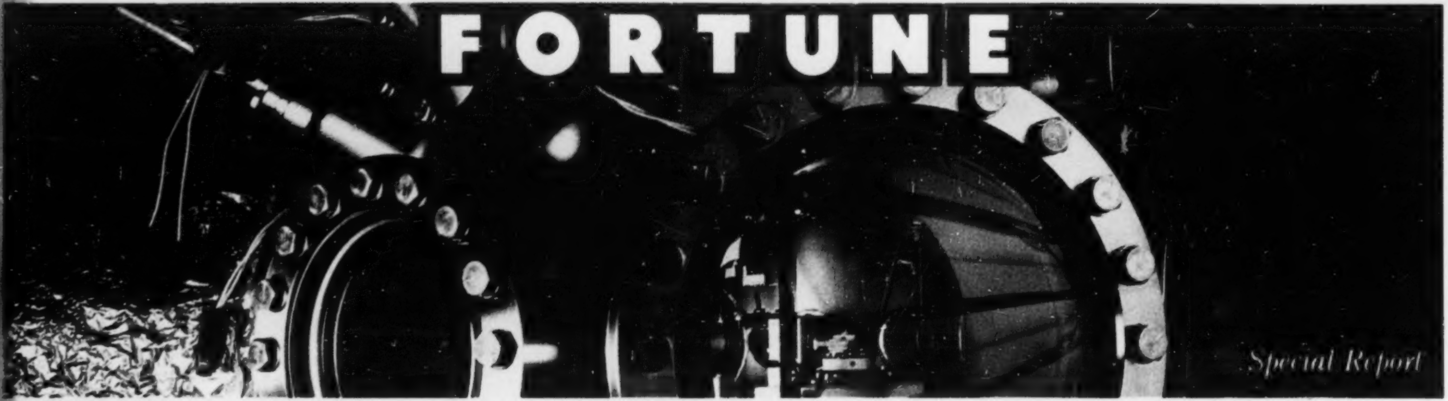

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The wafer of silicon, photographed by Black Star's Kim Steele at Bell Laboratories in New Jersey, contains computer chips designed to mimic the way brain cells work. See page 26.

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THE HIGH TECH RACE

WHO'S AHEAD?

WHAT ACCOUNTS for the amazing surge in the U.S. standard of living since the end of World War II? Capital, abundant natural resources, and economies of scale in the world's largest developed market all contributed to the doubling of output per man-hour over the past 40 years. But the largest single factor has been the forward march of U.S. science and technology. A Brookings Institution study, for example, ascribes 44% of the increase in productivity to technological innovation. Other economists estimate that during the past two decades innovation has accounted for almost two-fifths of the growth in the U.S. GNP.

The power of American inventiveness—from the light bulb to the laser, from the tractor to the transistor—is legend. But now the rest of the world is determined to catch up. Leaders of diverse political persuasions, from Mikhail Gorbachev of the Soviet Union to Yasuhiro Nakasone of Japan, agree that accelerated scientific and technical progress holds the key to the future economic and even social well-being of their countries. As other nations build up their scientific and technical skills, American dominance of world science and technology is slipping. A cautionary straw in the wind: This year, for the first time, U.S. high-tech imports are expected to exceed high-tech exports.

The U.S. still outspends all other nations in civilian and military research and development combined, and it continues to serve as the world's principal science schoolhouse and R&D lab. The great U.S. idea factories, such as American Telephone & Telegraph's Bell Laboratories, and leading research universities, like Caltech, MIT, and Stanford, remain the world's major wellsprings of new knowledge. But foreign students now get more Ph.D.s at U.S. universities in physics, mathematics, and engineering than Americans do.

All of the non-Communist world faces a formidable adversary in the Soviet Union, whose scientific and technological capabilities are often underestimated. With increased freedom and more and better computers, the U.S.S.R. could well emerge as the surprise entry in the global high-tech sweepstakes. Moreover, the industrial democracies are battling murderously among themselves for markets. Those who lead in translating new technologies into products and processes will reap the rewards in competitive advantage. So any weakening of U.S. dominance could threaten the future prosperity and safety of Americans.

The following article in this special report examines how the U.S. ranks in the high-tech race vs. Japan, Western Europe, and the U.S.S.R., with scorecards based on interviews with more than 40 knowledgeable scholars and business executives. Then FORTUNE appraises what the U.S. can do to enhance its competitiveness, looks at what will be taking place on the frontiers of science between now and the year 2000, and profiles ten outstanding men and women from around the world who are making that future happen.

BY GENE BYLINSKY

CHIRON CORP.

WHERE THE

COMPUTERS, CHIPS, AND FACTORY AUTOMATION

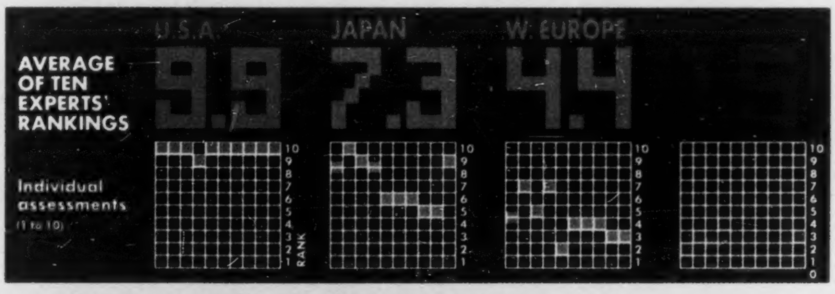
IN THE HEADLONG RUSH of high technology, the driving force has been the computer and everything connected with it—semiconductor chips, robots, telecommunications. By the year 2000 the electronics industry, already a $300-billion-a-year business, should more than triple in sales to become the biggest in the world except for agriculture. The nation that dominates it will stand astride the world economy like a 21st-century Colossus.

American scientists at Bell Labs pioneered the modern electronics age with the invention of the transistor in 1947. Japan has put that breakthrough and subsequent discoveries to use in consumer products, but its strength has been efficient manufacturing rather than basic science. Western Europe has excelled in both the design and manufacture of advanced telecommunications systems. The Soviet Union lags as much as ten years behind the West in most fields of electronics. As the chart below indicates, experts consulted by FORTUNE award the U.S. the top rank by a substantial margin in computers, the biggest component of the industry.

Control of the computer market by American companies seems assured for the immediate future. IBM, with 60% of the industry's worldwide sales and perhaps as much as 70% of the operating profits, will be hard to dislodge. Western European computer manufacturers account for a mere 10% of worldwide sales, the Japanese another 15%. The Soviets do not sell computers in the West; their main preoccupation is catching up.

Because of the myriad strands that go into computerized electronics, however, it is not easy to predict how long U.S. dominance will continue. Semiconductor circuits—chips—are the No. 1 strand. They are the key to everything electronic, the innards of all sizes and shapes of computers as well as consumer electronic goods, where Japan's rule has begun to be challenged by South Korea and Taiwan. Until this year U.S. merchant chipmakers led the world in sales. According to the respected industry analysts at Integrated Circuit Engineering Corp. of Scottsdale, Arizona, Japan will vault to the top by the end of 1986. Three Japanese companies, NEC, Hitachi, and Fujitsu, will take over leadership from Motorola and Texas Instruments.

U.S. chipmakers still retain the lead in the design of microprocessors, which serve as the brains of electronic equipment like personal computers and engineering work stations. The U.S. has 43% of the $2.75-billion-a-year world market in microprocessors; Japan has 34%, and Western Europe 18%. Fred Zieber, senior vice president of Dataquest, a San Jose, California, firm that keeps track of electronics markets, says the U.S. is likely to dominate the high end of the microprocessor market for the foreseeable future. But U.S. companies are beginning to lose share to the Japanese in high-volume parts like Motorola's popular and widely used 68000 and 68020 microprocessors, which the Japanese make under license. "They don't have to innovate in microprocessor architecture," says Glen Madland, chairman of Integrated Circuit Engineering. "They can buy it fresh or used. We lose to the Japanese in production effectiveness." The Japanese make many other American microprocessors under license, often cheaper and of better quality than their U.S. inventors can.



FORTUNE Scoreboard: Computers

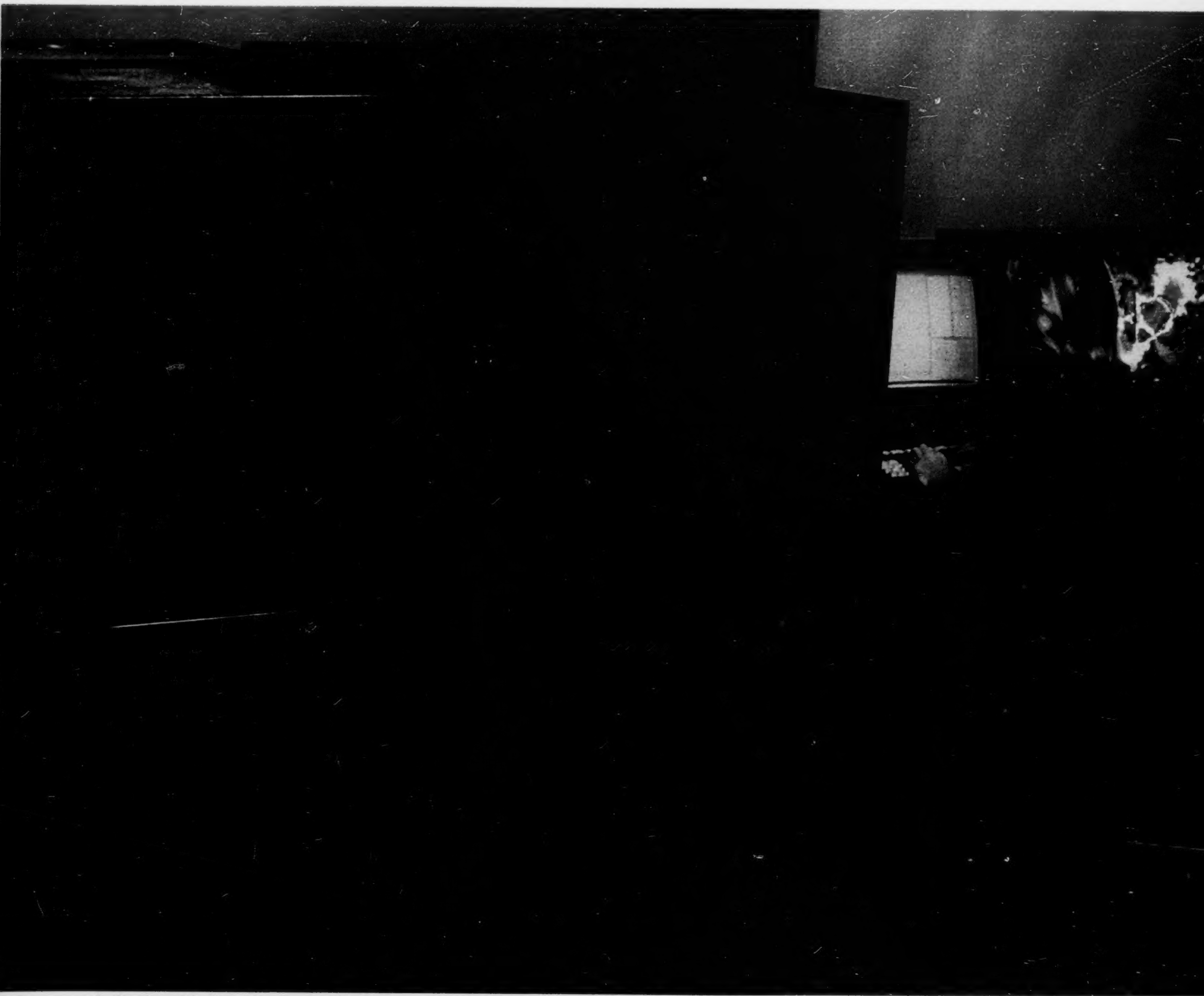
This chart and the three on the following pages rate achievement in key areas of high technology. FORTUNE *asked ten scholars, business executives, government officials, and foundation leaders in each field to rank the state of research and development in the U.S., Japan, Western Europe, and the U.S.S.R. on a scale of 1 to 10.*

Western European companies are leading in some important subdivisions of semiconductor technology. For example, ITT's European subsidiary, Standard Elektrik Lorenz, was the first to develop chips for digital processing of television pictures, which greatly improves image quality. West Germany's Siemens is the world's first supplier of a complete line of components for so-called integrated services digital networks, which allow data, voice, and video to travel over the same communications line. Jacques Ernest, technical director of Alcatel, the major French communications company, puts Western Europe and Japan ahead of the U.S. in the development of digital networks like Siemens's. Cie Générale d'Electricité, parent of Alcatel, agreed in August to buy the ITT subsidiaries in Europe for $1.5 billion. Eurotel, the new company, will be the second-largest telecommunications company in the world, behind only AT&T.

In a joint venture with Holland's Philips, Siemens is trying to produce an unusually large memory chip to keep Europe in the

REPORTER ASSOCIATE *Alicia Hills Moore*

U.S. STANDS



Imitating the brain, *where millions of neurons work as a team, new computers like this Connection Machine use vast numbers of processors that function in parallel. They excel at complex tasks like modeling the fluid flow shown on the screen at right. The red lights help spot any bugs.*

PHOTOGRAPHS BY KIM STEELE—BLACK STAR

semiconductor race. Philips and Siemens are putting up about $400 million each, the Dutch and West German governments another $400 million. As of now, though, in mass-produced memory and microprocessor chips Western Europe lags behind both Japan and the U.S., with only 21% of the world market.

Aiming to dominate that market, the Japanese have won the first big battle. They now control 67% of the $1.65-billion-a-year world market for dynamic random-access memory (DRAM) chips. DRAMs are to computers and other electronic equipment what paper is to writers. They are the most widely used and cheapest memory chips. Because DRAMs are manufactured in huge quantities, they are also an excellent means for honing new processes and production techniques.

In a detailed study of the chip industry last December, Charles H. Ferguson, an MIT political scientist, concluded that the smaller U.S. companies cannot begin to compete with Japan's huge, powerful companies like NEC, Hitachi, and Fujitsu in increasingly complex chip structures and systems. The U.S. makers, however, will continue to get defense-related work like the VHSIC program for making superchips little more than an inch on a side that will be as powerful as some of today's supercomputers (FORTUNE, September 29).

The Japanese now lead the world in the development of gallium arsenide, a material with great promise for future computers and telecommunications networks because it can handle both electronic and light signals. Gallium arsenide chips can also process information almost ten times faster than silicon chips. IBM, AT&T, and a number of start-up U.S. companies such as Gigabit Logic and Vitesse Electronics, both in the Los Angeles area, are hard at work on gallium arsenide. The U.S. Department of Defense has a large program in the material, mainly for signal processing, at many aerospace companies. In Western Europe companies such as Thomson, Philips, and Plessy are doing gallium arsenide research. The Soviets also have some studies going.

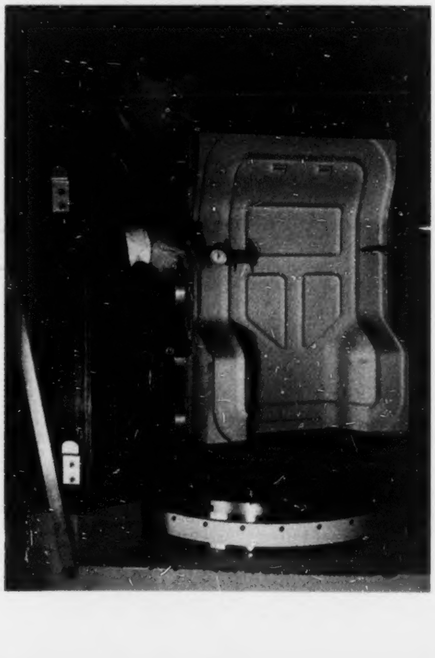
THE SCOPE, size, and intensity of the Japanese effort in the development of new technologies for chip manufacture invariably startle visitors from the West. The newest approaches to chipmaking include optical and X-ray lithography techniques that will allow the further drastic shrinkage of the dimensions of microminiaturized transistors and their related components. Work on these techniques at all the major Japanese electronics companies, including NEC, Hitachi, and Fujitsu, is now comparable in scope with that at IBM and AT&T's Bell Labs, long the leaders in chip technology.

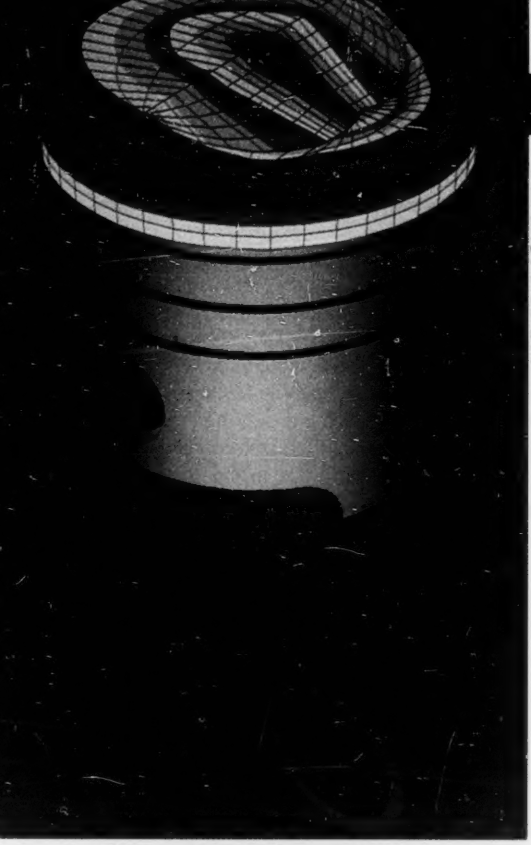
In computers, the enterprise of American start-up companies and IBM's formidable worldwide presence have so far prevented the Japanese from becoming threatening competitors. With their incessant innovations, the small U.S. entrepreneurial companies have kept their less adaptable Japanese rivals off balance. No easy targets like the DRAM chips have opened up. So the Japanese have been left with the unimaginative copycat approach, imitating IBM machines and software.

But a new stage is emerging in computing, and many scientists in the field wonder if the next step may not favor the Japanese. Warns Geoffrey Fox, a pioneering supercomputer designer at Caltech: "Now is the time Japan could just walk in and steal the baby." That next stage is parallel processing, a topic that necessarily recurs throughout this special report. Technically it involves a turn away from conventional step-by-step linear data processing to systems where a large number of processors—dozens, hundreds, even thousands—simultaneously attack a problem. Parallel processing would not only reduce the time required to retrieve and store data but also increase the complexity of the commercial and scientific tasks that a computer could tackle.

At the same time, parallel processing is the perfect vehicle for artificial intelligence (AI) because AI programs eat up so much computing power. The most completely developed form of AI takes the distilled skills of specialists and offers them as computerized "expert systems" to help the less adept—for example, by guiding a novice employee through the process of judging a customer's credit-worthiness. Parallel processing is

From art to part: *at GE's Schenectady, New York, R&D center, computers speed turning plans into products. At left, an engineer creates and tests a design for a plastic backpack frame; the computer automatically sends instructions to machines that make molds for the frames (right).*





PATRAN DIVISION, PDA ENGINEERING

Time-saving software *from PDA Engineering in Irvine, California, can be used to detect and analyze hot spots in a piston (in color at top) without building a real-life model.*

made to order for supercomputers—the great new machines that allow such feats, crucial to industrial competitiveness, as testing an airplane's wing inside the computer with airflow simulated by an electronic "wind" consisting of equations and formulas. A recent National Science Board report says that ever faster supercomputers will allow researchers to simulate and display on monitor screens the creation of the universe, the unseen innards of stars, a thought slipping through a brain.

The big question about AI is who will take the lead—Japan or the U.S.? The other potential player, Western Europe, is still marshaling its forces. As in the rest of electronics, the Soviet Union lags far behind.

So far American entrepreneurial companies are leading in AI, supercomputers, and parallel processors for commercial applications. Teradata Corp. of Los Angeles, for instance, has just delivered to Citibank what may be the most powerful computer ever for business applications, a system that will eventually consist of 168 individual interconnected processors. Citibank will be able to get answers in minutes to complex questions that would take days, even weeks, on conventional computers—say, retrieving almost instantaneously such data as the names of all customers in the U.S. Northeast who earn more than $50,000 a year and have mortgage loans and checking accounts. This helps the bank target its marketing strategies more precisely. A large number of companies, including Inference Corp. of Los Angeles, Teknowledge of Palo Alto, California, and Symbolics of Cambridge, are beginning to supply expert systems packages for a wide range of industries.

What pleases AI doyens such as Edward A. Feigenbaum, a Stanford professor, is that bigger companies such as Texas Instruments and Control Data are also entering the field. Three years ago Feigenbaum coauthored a book that bitterly criticized large U.S. corporations for missing the AI bandwagon. But now he is happily surprised at how fast they are moving. IBM too is gearing up to enter the AI expert systems market soon. So far IBM has only a few high-end machines that offer a rudimentary form of parallel processing, but work on it is a major program at the Thomas J. Watson Research Center that towers like a green-glass battleship over the hills of New York's Westchester County. "We're very open-minded about the way we solve problems," says Ralph E. Gomory, a senior vice president and chief scientist at IBM. "If parallel processing turns out to be a terrific thing, I assure you that we are not going to ignore it."

Parallel processors come in two versions, sometimes combined in the same machine. In vector, or "lock step," processing, relatively simple arithmetic operations are performed simultaneously on a set of data. In more advanced concurrent processing, dozens, hundreds, or even thousands of individual processors work on different aspects of a problem at the same time, an approach suitable to such complex problems as modeling the performance of a chemical plant.

The vector machines are exemplified by supercomputers such as the Cray machines and Control Data's Cyber 205 series. The newer concurrent processors are typified by the Teradata system and by the Connection Machine, which in its first commercial version has 16,384 individual processors. Later models will have 65,536. Thinking Machines Corp. of Cambridge, Massachusetts, makes the machine (its inventor, Daniel Hillis, is profiled on page 56). In addition to these and other commercial ventures, the U.S. government supports research on new supercomputers at New York University, Cornell, and the University of Illinois, among other institutions.

Racing on a parallel track is Japan's Fifth Generation project, which aims to leapfrog the rest of the world in AI and parallel processing. The first commercial product to emerge from the Fifth Generation program is the personal sequential inference machine (PSI) made by Mitsubishi Electric, one of the participants in the project. Instead of merely adding up numbers, the PSI deals with logical inferences. It is a work station, a desktop computer intended for the development of expert systems. While U.S. computer specialists aren't impressed—they have already built more powerful work stations of this type in university research projects—they will be if the Japanese meet their goal of a tenfold boost of PSI power by next year. "That would give them a dramatic performance advantage," says University of California computer scientist David Patterson.

"If five years down the line the logical inference approach turns out to be very important for a segment of the market," adds Patterson, "the Japanese will have a huge head start because few or no American companies are taking that view of building computers." But the Japanese have still to prove that mass can top class—that their big national and corporate teams can do better than brilliant individuals and small groups in the U.S. If the next step in computing requires massive application of resources and manpower, as in the Fifth Generation project, only IBM will be in a position to compete.

EVEN IF the Fifth Generation project does not meet its ambitious goals, it will help Japan improve its software production, now a weakness. The U.S. lead in software remains strong, partly because designing software is creative work that lends itself well to the individualistic American approach. The Japanese have been handicapped by their relative lack of software-writing skills in microprocessors, for example, but they are trying to make up for the lag by training more people. The Fifth Generation project envisions instructing 10,000 engineers in the intricacies of software and AI by 1995.

The Japanese project has energized research in the U.S., Western Europe, and the Soviet Union on AI. The Soviets, in fact, have launched a fifth-generation project of their own called START at a consortium of computer institutes in Moscow, Novosibirsk, and Tallin. Soviet researchers are trying to build a massive parallel computer, code-named MARS. Sy Goodman, a professor of computer science at the University of Arizona who follows Soviet computer developments, says that some prototypes may be operating but little else is known. Because of Soviet scientists' traditional strength in mathematics and logic, Goodman expects them to make significant contributions in AI.

At the workaday end of computer applications lies the factory floor. Some American specialists claim that the U.S. is ahead in the total integration of automated manufacturing systems, while the Japanese lead in simpler types of automation. But the Japanese have the better idea. Hriday Prasad, manager of industrial control systems at Ford Motor Co. and a frequent vistor to Japan, discovered that when Yamazaki Machinery Works Ltd. decided to automate its Minokamo plant, its engineers were asked to lay out all the parts of its products, and the 672 tools used to make them, on huge tables that occupied an area the size of a football field. The engineers were asked to mull over this layout for months to allow elimination of unneeded tools. In the end the engineers cut the number to 45.

"In the West," says Prasad, "the tendency in designing a new plant is to grab all the new technologies you can get hold of—databases, computers, machines, whatever it is. The Japanese think simplicity first and get those technologies only if needed. The big emphasis in Japan is on designing products for ease of manufacture." But Americans can sometimes beat the Japanese at that game. IBM redesigned the PC printer to make it simpler to produce and says it now turns out the printer less expensively than Epson, IBM's former Japanese supplier, could.

While factory automation proceeds at a nice clip at big U.S. companies like IBM and some smaller ones like Allen-Bradley, most U.S. industry is moving slowly if at all. Glen Allmendinger, president of Boston-based Harbor Research, which keeps track of factory automation, says that while thousands of U.S. companies are installing computerized factory automation equipment, only 100 to 150 are actively forming plantwide networks. The U.S., he adds, is also lagging behind Western Europe in factory automation. Allmendinger says the Soviet Union "is in the Dark Ages."

LIFE SCIENCES

WHEN SIR ROBIN Nicholson, until recently science adviser to Prime Minister Margaret Thatcher, gave a talk in the U.S. earlier this year, a manager of a West Coast biotechnology firm came up to complain that the British government wanted to sell off its Plant Breeding Institute in Cambridge, a top-ranking research center. The only known bidder so far is Britain's chemical giant, ICI. If PBI went to the private sector, the American said, his firm would lose one of its best sources of research information. "That's exactly what we had in mind," Nicholson replied. "We have to start thinking about the well-being of U.K. Inc."

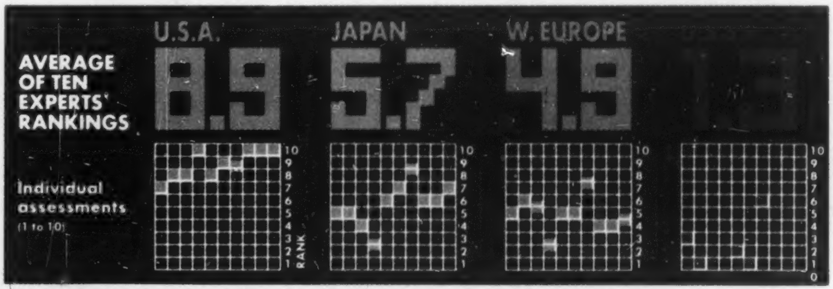
Such is the increasingly heated state of international competition today in biotechnology, the commercially promising product of the revolution in the life sciences that began with the 1953 discovery at Cambridge of the structure of DNA. The DNA molecule functions much like a perforated tape that tells factory machinery how to fashion a part out of metal or plastic. Genes in the threadlike DNA molecule are analogous to the coded instructions punched into the tape. They tell the cell machinery which proteins to make, which in turn determines the nature of the organism and how it develops.

Gradually scientists, principally in the U.S. but also in Western Europe, learned how to slice the tape and splice new segments of instruction into it. Now a common, harmless bacterium such as *E. coli* can be turned into a tiny factory by splicing a new gene into its DNA—for example, a gene that prescribes the making of a human growth hormone or human insulin that provides safer treatment for diabetics than insulin extracted from cows and pigs. The same type of genetic engineering can be applied to plants to improve their disease resistance or to sows to produce a sturdier piglet.

The commercial power of biotechnology is concentrated in genetic engineering, also known as recombinant DNA technology. But another booming biotechnology market has arisen from the discovery in England in 1975 of a way to make in the lab so-called monoclonal antibodies, proteins that unerringly seek out foreign cells—cancer cells, for example—which they lock on to as diagnostic markers or carriers of drugs designed to kill the invaders. Still another market: safer vaccines that mimic only a small part of the structure of a virus and for that reason are less likely than an ordinary vaccine to trigger a disease inadvertently. The body recognizes these vaccines and responds to them with the proper antibodies and other defensive substances, much as a detective would recognize a criminal by his fingerprints.

The knowledge that has made possible all this restructuring and remodeling of nature is being transferred with great efficiency from American and European universities to entrepreneurial biotechnology companies, the vast majority of them in the U.S. More than 200 American venture capital companies have jumped into the field. Already on the market are genetically engineered human growth hormone and insulin, both developed by Genentech Inc. of South San Francisco. Genentech is working on a number of other substances, such as tumor necrosis factor (TNF), which fights cancer, and tissue plasminogen activator (TPA), which dissolves blood clots.

Genentech's rival across the bay, Cetus Corp. of Emeryville, California, is turning out cancer-blasting Interleukin-2 for clinical trials and preparing a number of other immune system regulators for later marketing. Chiron Corp., across the street from Cetus, developed the first genetically engineered



FORTUNE Scoreboard: Biotechnology

The experts' rankings are for genetic engineering and other applications of the discoveries in molecular biology that have ensued since the structure of DNA was deciphered in 1953.

CETUS CORP.

Improving on nature, *Agracetus of Middleton, Wisconsin, is studying tobacco plants with a gene for resisting a disease. They are the first genetically engineered plants allowed out of the lab.*

vaccine—for hepatitis B, one of the principal forms of the dangerous liver disease. Merck Sharpe & Dohme will make and market the vaccine, which the FDA has just approved for general use. California Biotechnology Inc. of Mountain View is using recombinant DNA technology to make large quantities of human renin, an enzyme that regulates blood pressure.

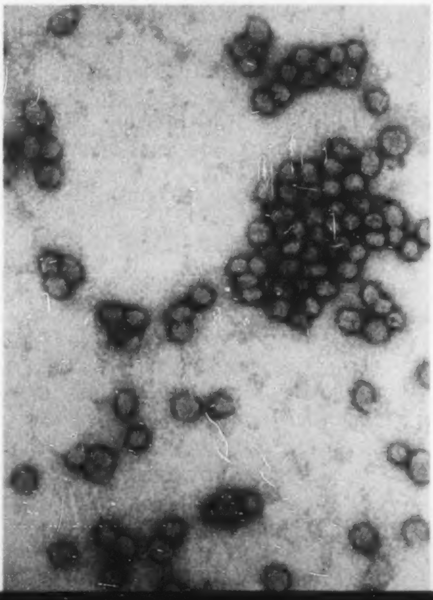
Both Genentech and Chiron are investigating the possibility of producing an AIDS vaccine. The companies' scientists have identified proteins on the surface of the virus particles—those telltale fingerprints. They reproduced those proteins in the lab and injected them into rodents, which produced antibodies to the AIDS proteins. The antibodies kill the virus in test tubes, but researchers have yet to establish that the vaccine would work in people.

Biotechnology is also big down on the farm. Agracetus of Middleton, Wisconsin, a joint venture of Cetus and W.R. Grace, is testing a tobacco plant with a disease-resistant gene; because of its ease of cultivation, tobacco is a convenient vehicle for trying out such genes for later use in food crops. Monsanto is preparing herbicide-resistant corn and wheat. Many other U.S. companies have genetic-engineering products in either laboratory testing or clinical trials.

The range and depth of U.S. activity in applications of genetic engineering is unmatched anywhere in the world—and so is the scope of life sciences research at American universities, national institutes, and private laboratories. According to the National Science Foundation, the U.S. probably spends about $10 billion a year on life sciences and biomedical research, more than all other nations combined. But rivals have not been exactly mesmerized. Japan is coming on especially strong, particularly in the practical aspects of biotechnology.

The Japanese are racing to strengthen their abilities in the life sciences because they believe that biotechnology will be a springboard that will vault Japan into the 21st century as world leader in technology. They have some way to go, to be sure. Japan is lagging in fundamental biology but it is trying to catch up, both by tapping U.S. resources and by encouraging research at home. At the National Institutes of Health in Bethesda, Maryland, the world's principal biomedical research center, 311 Japanese researchers are now in residence—more than from any other country. The U.S. is actually supporting much of their work: Three-quarters of them are on NIH fellowships, while the rest are funded by Japanese institutions. From 1980 to 1983 Japanese companies concluded an astonishing 188 collaborative agreements with small U.S. genetic-engineering companies. The American venture capital firms needed cash to survive; the Japanese needed knowledge to expand their industry.

Chiron Corp. researchers *made a vaccine against hepatitis B virus by genetically engineering these particles that simulate it.*



CHIRON CORP.

The U.S. Congressional Office of Technology Assessment (OTA) sees a formidable biotechnology challenge in the making from Japan because, for one thing, a large number of Japanese companies—more than 130—in a variety of industries are getting involved. Among them are chemical, food-processing, textile, and paper companies. The new entrants include chemical makers Sunstar and Hitachi Chemical, food processors Ajinomoto and Suntory, and textile and paper makers such as Toray Industries and Asahi Chemical. Japanese companies have many joint ventures among themselves, and they have been exploiting their ties with U.S. start-ups.

A typical example is Kirin Brewery Co.'s $24-million deal with Amgen Corp. of Thousand Oaks, California. Kirin contributed $12 million in cash; Amgen supplied $4 million in cash and $8 million worth of technology. A brewer for more than 100 years, Kirin began to diversify into life sciences only four years ago because its beer market was going flat. A U.S. brewer faced with a stagnating market might well have diversified into other beverages. Kirin, in typical Japanese fashion, is reaching out into high tech.

KIRIN had got interested in erythropoietin, EPO for short, a hormone that stimulates the formation of red blood cells and might be used to treat kidney disease. The company had been extracting EPO from urine, painstakingly and in tiny amounts. In 1983, in a major scientific coup, Amgen synthesized the EPO gene. Kirin offered Amgen its production skills and the collaboration of its researchers on other projects in exchange for the $12 million, for which it also got the Japanese rights to EPO. "Amgen's technology opened the road for us to mass-produce EPO," says Koichiro Aramaki, manager of Kirin's pharmaceutical department. EPO is still in clinical trials and has not yet been approved for use in either the U.S. or Japan.

Western Europe was a slow starter, but

major companies there are now vigorously pursuing pharmaceutical applications of biotechnology. OTA reports that, on average, European companies' biotechnology R&D budgets lag somewhat behind those of established U.S. companies and even some start-ups. But as biotechnology processes gain wider acceptance in the pharmaceutical industry, American firms can expect competition from companies such as Bayer AG and Hoechst in West Germany, Hoffmann-La Roche, Ciba-Geigy, and Sandoz in Switzerland, and Rhône Poulenc in France.

AT FIRST European companies' involvement in biotechnology consisted mainly of research contracts with universities and institutes. More recently, though, the large European firms have begun to pour big money into establishing in-house research and expanding their scientific work in the U.S. Overall, OTA places Europe further behind the U.S. in the applications of biotechnology to product-related research than in fundamental studies. But strong market-oriented efforts by major chemical companies in West Germany and by pharmaceutical houses in Switzerland and Britain are under way.

Western Europeans are already doing well in selected areas. For example, Celltech, a six-year-old British start-up, is the star among some two dozen British biotech companies born since 1980. It leads the world in the bulk production of monoclonal antibodies, the specialized protein molecules that are useful not only in diagnosing and treating disease but also in purifying genetically engineered drugs like interferon and identifying toxins in food. "We intend to keep that lead," says Gerald Fairtlough, Celltech's chief executive. Recently Celltech won the first license from the U.S. Food and Drug Administration for bulk production of monoclonal antibodies in America. That gives it a leg up in both Europe and the U.S. and may help it crack the Japanese market.

Elsewhere in Europe important work in plant research is in progress at the Max Planck Institutes in West Germany. The first fusion of cells from different plant species produced an improbable new plant called the pomato. It grew only minuscule potatoes below ground and equally puny tomatoes above, but cell fusion is still being pursued by researchers everywhere. The potential now seems to lie in fusing cells of related species, such as a wild tomato with domesticated one, to improve the qualities of an existing plant rather than creating brand-new ones. Scientists once talked of miracle plants like soybeans as tall as fir trees, but so far they have been unable to produce anything by fusing cells from entirely unrelated plants. (Tomatoes and potatoes are distant cousins.)

A number of older European companies operate in biotech niches. Two examples: Holland's Gist-Brocades, which specializes in enzyme technology that has industrial uses ranging from food processing to waste cleanup, and Denmark's Novo Industries, known worldwide as a dependable supplier of insulin and industrial enzymes.

Europe hasn't thrown much money at its biotech scientists. But consider the disadvantage Soviet biotechnologists face. They have to make up for decades lost during the hegemony of Stalin's favorite agronomist, Trofim Lysenko, who defied accepted genetics by arguing that plants and animals inherit traits acquired by their immediate forebears. Lysenko managed to undermine Soviet work in the life sciences, which had traditionally been strong, by dismissing genetics as a capitalist hoax. He had scientists who disagreed with him sent to Siberia. Now, however, the Soviets have an extremely active program that puts particular emphasis on meeting the country's agricultural needs. About two-thirds of the U.S.S.R.'s huge land mass is unusable for agriculture because of permafrost, poor soil, or capricious climate. One goal of Soviet agricultural research is to develop plants that will grow in hostile conditions. Faster-ripening plants that mature during short summers, hardier and more productive species, and improved nutritional content are among the aims of the country's genetic engineering.

Soviet scientists also have strong programs in basic molecular biology and in health-related biotechnology. Walter Gilbert, a Harvard molecular biologist, credits Andrei Mirzabekov, now director of the Institute of Molecular Biology in Moscow, with setting him on the path that led Gilbert to his Nobel Prize-winning work in rapid sequencing of DNA—determining the order in which its components occur.

According to MIT professor Alex Rich, the Soviets are doing fundamental research in a number of areas of biology. One of the most vigorous programs is at the Shemyakin Institute in Moscow, a place he describes as "rather large and lavish." There, for example, Vadim Ivanov is studying ionosphors—molecules that carry ions across cell membranes. Understanding how this process works could help biologists learn how cells maintain a stable environment. Each cell is like an encapsulated world, "a pinched-off piece of the ocean," Rich says. The Soviet research could help scientists learn how the cell membranes keep the crucial chemical balance necessary for proteins to thrive or allow antibiotics to punch through to zap bacteria. Similar efforts are under way in the U.S., but Rich says the work at Shemyakin is second to none.

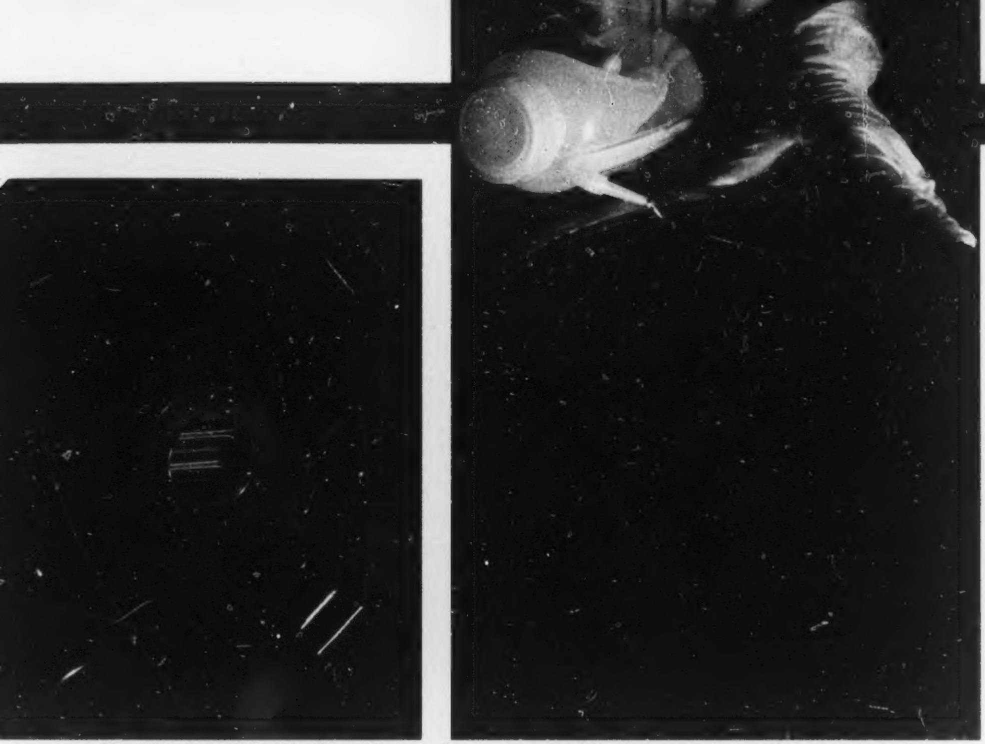
Other researchers at the institute are doing first-rate investigations of rhodopsin, the eye protein that transforms light into electrical impulses for the brain to process (see "What Tomorrow Holds"). That Shemyakin team is trying to unravel the chemical structure of the protein—an exceedingly difficult task, but one that could have a big payoff. "If we understand how rhodopsin operates, it could lead to understanding how vision works, which should help in correcting sight impairments," says Elkan Blout, a Harvard biochemistry professor.

ADVANCED MATERIALS

THE RISE OF CIVILIZATION has depended on the emergence of materials that gave their names to whole epochs—the Stone Age, the Bronze Age, the Iron Age. Yet however vital they were to man's march from the cave to the computer, until recently the materials involved have been mostly nature's gifts or simple improvements on them: sand melted into glass, ores purified into metals. But now the world stands on the threshold of a new age of *man-made* materials.

Today scientists can tailor the basic structures and properties of materials to suit their needs. Companies that lead in inventing and producing these ingredients of tomorrow will be in a strong position to dominate many high-technology industries.

A stream of new materials with remarkable qualities is already flowing from the labs: glass that bends without breaking, plastics as tough as steel, metals that stretch. Inside high-vacuum chambers, materials for electronic and optoelectronic applications—those that link electronic data processing with light-based data transmission through optical fibers, for example—can now be made in layers as thin as a single atom.



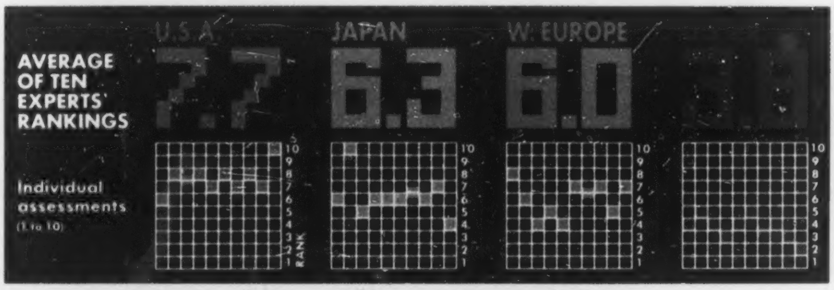
Newly developed phosphate glass *for amplifying lasers undergoes heat testing at the University of Rochester (left). It will be used for laser mirrors like the one being assembled at right.*

These optoelectronic circuits will start moving into the innards of computers and communications equipment in the near future.

This new technology is turning one of primitive man's first creations, ceramics, into materials with a vast range of applications, from artificial tooth implants to shielding for nuclear reactors. And the ability of modern science to cool molten metal almost instantaneously is yielding materials with new, improved electrical properties such as greater conductivity, while the capacity to bombard materials with ions—atoms stripped of some of their electrons—makes possible new semiconductor structures for use in electronics. Ralph E. Gomory, a senior vice president and chief scientist at IBM, thinks the development of new materials will set the pace of progress: "Every single step in computing has depended on solving one materials problem after another."

In materials research Western Europe and the Soviet Union are spotty performers. Most experts rank the U.S. as No. 1 in basic research, but Japan holds the lead in using science most effectively to produce new materials. The Japanese have launched a national drive to be first in developing materials for electronics and optoelectronics. Earlier this year a group of U.S. scientists from national laboratories and industry toured ten Japanese labs and came back with a disquieting report that was issued jointly by the National Academy of Sciences and the National Academy of Engineering.

The team found that within the past year the U.S. has lost leadership in seven out of nine critical emerging technologies in electronic and optoelectronic materials. The Americans were particularly impressed by the MITI Optoelectronics Joint Research Laboratory near Tokyo, directed by Izuo Hayashi, a world-acknowledged pioneer in the field (see page 55).



FORTUNE Scoreboard: New Materials

For these rankings the experts rated the four competitors on development of exotic materials that have been put to scientific or industrial use within the past ten years.

Hayashi and his team of 50 researchers have built a unique facility, an assemblage of interconnected high-vacuum chambers and processing machines that looks like a high-tech soup kitchen. There they are working to turn out new materials that are expected to be the building blocks of electronics seven to ten years from now. The Japanese are using what is called molecular beam epitaxy (MBE) to deposit finely controlled layers of material—a process invented at Bell Labs.

By FORTUNE's rankings, the Soviet Union comes in last in all four major areas of technology, but it does best in advanced materials, in part because of one remarkable discovery. The Soviets have found a way to deposit an ultrathin film of diamonds on the surface of materials to harden them and impart other qualities. For example, the heat that semiconductor chips generate can cause malfunctions if it is allowed to build up. The Soviet discovery makes it possible to dissipate that heat by conducting it though a thin diamond layer underneath the working part of the chip.

WHAT'S MORE, James Ionson, director of the Innovative Science and Technology office of the Star Wars project, suggests that a similar technique that U.S. researchers are now pursuing could "absolutely revolutionize" the semiconductor industry. He thinks that the thin diamond films themselves could be used to build chips that would be even faster than those made from gallium arsenide. Ionson's office is now supporting research on diamond coatings because they could be extremely useful in optical lenses and other components of Star Wars. More mundane applications could produce scratchproof glass and razor blades that hold their edge longer.

The scientist responsible for the discovery, Vladimir Deryagin of the Institute of Physical Chemistry in Moscow, began his pioneering research in the 1970s. His technique involves a low-pressure apparatus in which microwaves excite a mixture of methane and hydrogen. Scientists would normally expect the end result to be a layer of graphite, but a surprising chemical reaction deposited a diamond film instead.

While Deryagin published his first report ten years ago, the U.S. has been slow to pursue civilian uses of the technology. The Japanese have been wider awake. About 20

Japanese companies, including Sumitomo and Chawra-Denko, have already taken the Soviet discovery and are turning it into product applications that include thin transparent diamond coatings for eyeglasses and airplane windows. Sony is test-marketing a loudspeaker with an element coated with diamond film that reproduces sound with greatly increased fidelity. Says Rustum Roy, a Penn State physics professor: "The Japanese grabbed the science and made it into a technology." Except that this time it was a Soviet invention, not an American one.

U.S. companies appear to be doing a lot better in a number of other new materials. Allied-Signal, for instance, picked up a Caltech discovery called metallic glass more than 20 years ago and is now carrying it into commercial production. It's not glass in the ordinary sense; you can't see through it. It's actually a metal cooled so rapidly that it ends up with the amorphous structure that distinguishes glass from the highly ordered crystalline structure of metals. One of the properties of metallic glass is its ability to switch an electric current with little loss of energy. Allied makes the glass for transformers in the form of paper-thin ribbons that bend without breaking. Westinghouse and GE are evaluating prototype transformers that reduce the energy lost from switching by 75%, which could save U.S. consumers a billion dollars a year. Allied dominates the world market for the new glass, which Hitachi and TDK in Japan and Siemens Vacuumschmelze in West Germany are just entering. It has many other applications, such as joining metal parts in jet engines.

U.S. companies are strong in composites and polymers. Composites are materials such as ceramics and plastics that have been reinforced with synthetic fibers and carbon filaments. Alexander MacLachlan, Du Pont's senior vice president for technology, believes that composites will replace metals in some automobile and airplane parts to lighten weight and improve fuel efficiency. Polymers are plastics made of long molecules. They are now tough enough to replace steel in some applications and light enough to substitute for aluminum in others. GE is particularly strong in engineering plastics.

Polymers are also an area of Western European strength. One exciting development is the production of a biodegradable polymer using an unusual bacterium discovered by chance in a West German canal. Work on alternatives to oil-based bulk plastics began at Britain's ICI in the 1970s. By the early 1980s researchers could produce a few liters at a time of a new plastic, but stagnating oil prices made the market look uncertain. ICI persevered, setting up a subsidiary called Marlborough Bio-Polymer Ltd. that was partly financed with venture capital. Now, says John Adsetts, Marlborough's managing director, "we can produce tons of this stuff in a matter of days."

The bacterium is key to the process Marlborough uses to make the plastic; it produces something like 80% of its own weight as a polymer. Simply by changing the little fellow's diet—sugar, grain, or starch—Marlborough turns out a whole family of different plastics, "all unique and all patented," Adsetts says. Because the plastic, called Biopol, is biodegradable, it can be used instead of a bone plate; as the bone strengthens the plastic degrades, and no second operation to remove the plate is required. Adsetts sees a growing market as laws force consumers to turn increasingly to biodegradable plastics, and he thinks the Third World, often "sugar-rich but dollar-poor," is the ideal place to produce it. So far the Austrian chemicals maker Chemi-Linz is ICI's only competitor.

OPTOELECTRONICS

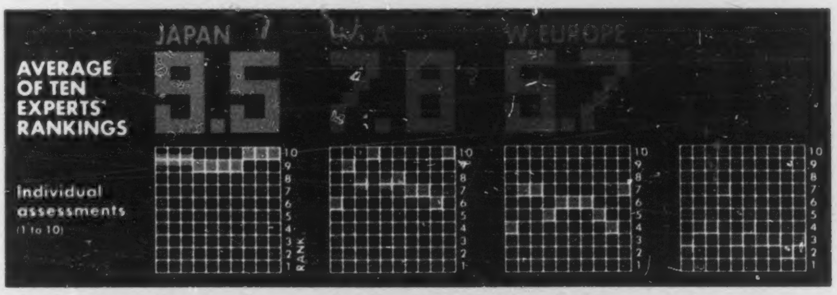
EVERYONE CONCEDES that the Japanese lead the world hands-down in one important new technology originally developed in the U.S. It is optoelectronics, a marriage of electronics and optics that is already yielding important commercial products such as optical fiber communications systems. Optoelectronics is widely expected to form the backbone of much of the next generation of information-based technology because it unites the electron with the ephemeral photon, the particle of light, to attain greater efficiency in data processing and transmission than electronics can achieve by itself.

So far it's the transmission side that has dominated the use of the photon. Photons can be employed as more compact carriers than electrons, transmitting massive amounts of data as laser pulses through hair-thin glass fibers. Optical communications networks are beginning to spread within and between cities around the world, replacing less efficient copper wires.

The next step: bringing optical switching and data transmission inside computers to speed up calculation. This will be achieved with chips that combine electronic data processing with photonic switching and transmission. Scientists in many countries are already experimenting with rudimentary chips of that sort. Integral to those systems—as well as to compact disks, automatic-focusing cameras, and many other consumer products—are semiconductor lasers no bigger than a grain of salt. They are made of semiconducting materials, in this case a variety of gallium arsenide.

Chips that allow photons to be switched may eventually lead to ultrafast computers that work entirely through optics, although most scientists are still skeptical. (Part of a Bell Labs optical computer project is shown in the photograph opposite.) Optoelectronics also includes such devices as light-emitting diodes used as displays in electronic calculators and other consumer and industrial products, and big lasers, not to be confused with their tiny semiconductor cousins.

The larger lasers, which represent an older technology, are used for a multitude of tasks, from determining the chemical compo-



FORTUNE Scoreboard: Optoelectronics

The rankings reflect progress toward combining light and electrons to make speedier computers. If the competitors were rated for laser research, the U.S. would be No. 1.

Lasers *at Bell Labs help in design studies for faster computers that use optics.*

sition of substances to cutting metal. FORTUNE's rankings do not include big lasers in the optoelectronics scoreboard. In big lasers Japan sinks to the bottom rank. The U.S. is No. 1, followed by the Soviet Union and Western Europe. In fact the larger lasers are one of the Soviets' few high-tech strengths besides diamond coatings. Back in the 1960s Nikolai Basov and Alexander Prokhorov of the Soviet Union shared the Nobel Prize as co-inventors of the laser with an American, Charles Townes.

But in the rest of optoelectronics, says Amnon Yariv, a pioneering researcher at Caltech, "the Japanese lead is very considerable. And there's little evidence that anything we are doing in this country will close the gap in the near future." Japan's commanding position in this rapidly developing field stems from a decision more than a decade ago by planners at the Ministry of International Trade and Industry (MITI), industrial scientists, and corporate executives to pour money and manpower jointly into the field. Since then at each of about ten major Japanese companies, including Hitachi, NEC, Fujitsu, and Mitsubishi, teams of up to 100 scientists and engineers have been working on optoelectronics, emphasizing the practical implementation of the new technology.

University and corporate researchers in the U.S. got into semiconductor lasers earlier, but stuck doggedly to innovation, conceiving and demonstrating most of the major building blocks of the new technology. The semiconductor laser was invented at GE, IBM, and MIT in the early 1960s and further evolved at Bell Labs. Corning Glass developed the first efficient optical fiber in 1970. A related technology, integrated optoelectronics, which combines data-processing electronics and semiconductor lasers on a single chip, was conceived and initially developed by Yariv and his co-workers at Caltech.

The lead slipped away not because the U.S. lacks theoretical knowledge in physics and optics. In fact, while the Japanese are now beginning to make first-rate theoretical contributions, the U.S. still shines in those fields. It is far ahead in fundamental optics, according to James Merz, a professor at the University of California at Santa Barbara and a former Bell Labs researcher who recently spent four months working at MITI's Joint Optoelectronics Laboratory near Tokyo. What's missing in the U.S. are size, direction, and sustained effort.

In optoelectronics, only Bell Labs mounts an effort that matches what a single Japanese company like Hitachi is doing. "The trouble is that the Japanese have ten Bell Labs," Merz says. In keeping with its reputation for pioneering, Bell Labs is doing excellent scientific work across the range of optoelectronics. For example, it recently built the first optical counterpart of the transistor, which its scientists hope will bring closer the day of the optical computer. Such a computer would be of particular value to AT&T. Because it can operate 1,000 times faster than an electronic computer, it would make a nearly ideal telephone switching system. Paradoxically, AT&T, whose Bell Labs was one of the developers of semiconductor lasers, is buying them from Hitachi for its transatlantic cable.

All told, the U.S. may have more researchers in optoelectronics than Japan does, but for the most part they are scattered in tiny groups doing defense-related work, with only secondary fallout for civilian industry. None of the teams is as production-oriented as the Japanese. Merz directs his university's recently formed Compound Semiconductor Center, supported in part by the Defense Department. By year-end he expects to have eight part-time researchers on his staff, which he considers "a good-size effort." The MITI lab where he worked has 50.

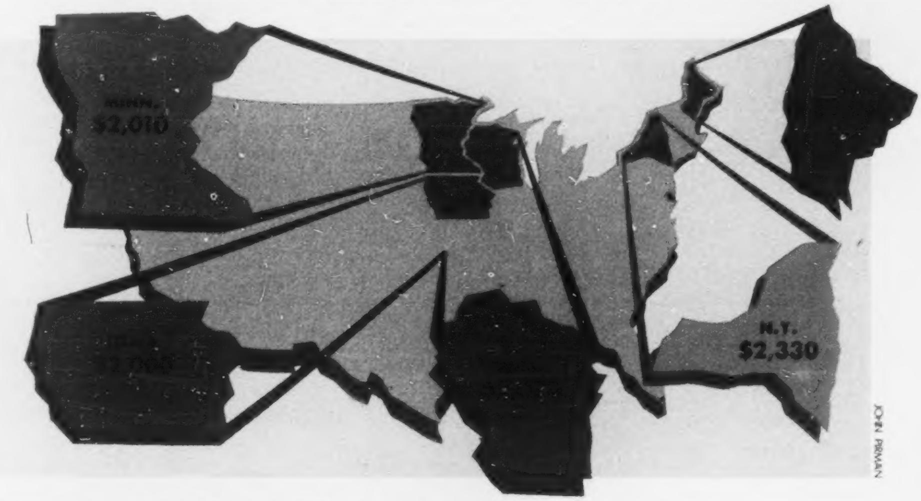
Western Europe and the Soviet Union suffer from a similar fragmentation. They have a few outstanding centers that specialize in optoelectronics, and little thrust toward harnessing the photon to a production technology. There are notable exceptions. A worldwide race is on to produce the purest possible glass fibers, and the French in particular are strong contenders. French researchers at the University of Rennes discovered what has become known as fluorine glass in 1974. The discovery was something of an accident: The team stumbled on it while trying to crystallize another substance. "Our big coup was not to throw the new fiber into the wastebasket," says Gwenhael Maze, president of La Verre Fluor SA, and a member of the discovery team. "Instead we kept analyzing and studying it."

Fluorine glass turned out to be sensitive to a far wider range of wavelengths than existing fibers, so it can carry more information. As Maze puts it: "Fluorine glass has a bigger optical window." The new glass has two applications. Maze's company is working on short-distance cables for medical and industrial uses. By running a cable from the mouth of a hospitalized patient to a measuring device, for instance, doctors can monitor the gases in the patient's breath and thus closely follow changes in his condition. The cable can distinguish the type of gas by the amount of heat it absorbs. The long-range use of the new fiber would be for telecommunications over vast distances with far fewer signal-boosting repeaters than are needed now. Some experts have speculated that transoceanic cables made of fluorine glass fibers might require no repeaters at all. But fluorine glass must be greatly purified and improved before it can be used for that purpose. Everyone is interested—from AT&T and Britain's Plessy to Japan's NTT.

HOLLAND'S PHILIPS HAS a head start in erasable optical storage disks that could one day replace the memory chips, magnetic tape, floppy disks, and hard disks that computers now use. The new disks have a seemingly boundless capacity for data, which can be recorded, read, and erased as needed by microminiaturized lasers. In the home entertainment market the optical disks will also be crowding in on compact disks, which Philips likewise pioneered. Unlike the optical disks, CDs cannot be erased; with optical disks, consumers will be able to record music from the radio or any other source. Says John Marcum, a former White House science adviser now at OECD in Paris: "Compared with optical storage disks, compact disks are as primitive as 78 rpm records."

YOUR COMING STATE TAX HIKE

Reform will push state income taxes up and eat into savings from the federal cut. Some people's total bill—federal, state, and local—will rise. Investors get hit hardest. ■ *by Ann Reilly Dowd*



JOHN PIRMAN

Where the Bite Will Be Biggest

For a family with a $120,000-a-year income, reform will boost state and local taxes by more than $2,000 in these five states. The cost is net of savings from deducting state taxes on federal returns.

WITH THE much ballyhooed tax bill about to pass, many people are focusing on how much they will save on federal taxes. If you are one of them, watch out: You may be about to get blindsided. Tax reform will also affect state income taxes, mostly for the worse. For most people, state tax increases will eat away only part of the savings from the federal tax cut. But for many others the state burden will grow so much that they will wind up paying more in *total* taxes—federal, state, and local combined—than they do now. That's the case in 19 states and the District of Columbia for a typical family of four with $60,000 a year in income.

This is just one of the striking conclusions drawn from a FORTUNE analysis of how tax reform will affect state and local taxes. The study, the first to examine the impact of tax reform in all 50 states and the District of Columbia, was prepared for FORTUNE by Arthur Andersen & Co. The accounting firm calculated the taxes two hypothetical families of four would pay in 1985 and 1988, after the new federal law is fully effective. One family has $60,000 in annual income, the other $120,000. Arthur Andersen calculated state and local income, sales, real estate and personal property taxes. It did not consider most local income taxes, so the tax burden is understated in such places as New York City (for the effect of reform on your state and local taxes, see table on the following pages).

Some other findings from the study:

▶ The state with the highest tax bite remains New York and the lowest Alaska. In New York, the $120,000 family's taxes climb from $16,330 to $17,240; in Alaska they remain unchanged at $2,240.

▶ Tax reform will really sock it to investors. The $60,000 family's state tax rate on capital gains will shoot from 5.5% to 13.8% in New York and from 2.8% to 7.5% in Montana.

▶ People will probably look more closely than ever at state and local taxes in deciding where to live, and companies will do the same in considering where to build a new office. For example, the *difference* between the federal, state, and local taxes that the $120,000 family pays in New York and Vermont rises by more than $2,000 a year, to $7,900.

Federal tax reform only affects income taxes, but most of them will go up. That is because 34 states and the District of Columbia tie their income taxes to the federal system; their residents will lose many deductions and income adjustments on their state taxes that Congress is taking away at the federal level. In 14 of those states, taxes also climb because residents get to deduct federal income taxes on their state returns; as federal taxes decline that state deduction will shrink. Finally, residents of most states will pay higher capital gains taxes.

State and local taxes will remain unchanged in the nine states that do not have income taxes and in three states whose income taxes are not linked to the federal code. And taxes will drop in four states: Rhode Island, Vermont, Nebraska, and North Dakota. Their income taxes are a percentage of federal tax liability, so lower federal taxes will mean lower state taxes.

However, the true cost of state and local taxes will rise in all 51 jurisdictions for both the $60,000 and $120,000 families. The true cost is the amount of state and local taxes a family pays minus what it saves by deducting them on its federal tax return. That is the best way to measure the burden of state and local taxes because it is the amount of spendable income that taxpayers lose.

This cost of state and local taxes will rise everywhere because the federal savings from deducting them will drop substantially. Sales taxes will not be deductible at all, and lower federal tax rates will reduce the value of deducting income and property taxes.

REPORTER ASSOCIATE *Lucretia Marmon*

On average, the cost of state and local taxes for the $60,000 family will rise $531, or 19%. The cost for the $120,000 family jumps an average of $1,305, or 25%, and goes up by $2,000 or more in the five states shown on the map. Says Stephen Corrick, a tax partner with Arthur Andersen: "Tax reform peels back the camouflage that has disguised the real cost of state and local taxes." Some governors have been promising to give back the windfalls they get from higher income taxes. But since no one really knows what the states will do, FORTUNE had Arthur Andersen base its calculations on present tax laws.

Both families in the study get hit hardest if they live in high-tax states that peg income taxes to the federal tax base. They fare best in low-tax states, especially those with low sales taxes. But some of the largest *percentage* increases in the tax burden will come in low-tax states. Even taxpayers in states without an income tax can get skinned. In Wyoming, for example, the net cost of the $60,000 family's state and local taxes rises 25%. The $120,000 family's net taxes go up 33%. But have no pity: In both cases the taxes will still be lower than everywhere else except Alaska.

The most punishing tax increases fall on capital gains. The federal government currently taxes only 40% of the gain on assets held more than six months, so that the top capital gains rate is 20%. Under tax reform, the federal government will tax the entire gain at the same rate as ordinary income. The top rate will be 28% in 1988, but families with taxable incomes above $71,900 will pay a 5% surtax to eliminate the savings from personal exemptions and the 15% rate on their first dollars of taxable income. For a family of four, the surtax applies to taxable income up to $192,930. Within that range, the top rate will really be 33%.

OF THE 42 STATES that tax capital gains, 31 apply their tax to the figure reported on federal returns, now 40% of the gain. Under tax reform, those states will automatically levy their tax on the full gain unless they change their laws. In other words, their capital gains taxes will rise by 150% or more. The com-

How Reform Affects Two Families' State and Local Taxes

	$60,000 FAMILY INCOME						$120,000 FAMILY INCOME					
	STATE AND LOCAL TAXES		MARGINAL STATE INCOME TAX RATE		MARGINAL STATE CAPITAL GAINS RATE		STATE AND LOCAL TAXES		MARGINAL STATE INCOME TAX RATE		MARGINAL STATE CAPITAL GAINS RATE	
STATE	1985	**1988**	1985	**1988**	1985	**1988**	1985	**1988**	1985	**1988**	1985	**1988**
Alabama	$1,990	**$2,370**	2.3%	**2.6%**	2.3%	**2.6%**	$3,180	**$4,110**	1.7%	**2.3%**	1.7%	**2.3%**
Alaska	$650	**$690**	0.0%	**0.0%**	0.0%	**0.0%**	$1,300	**$1,500**	0.0%	**0.0%**	0.0%	**0.0%**
Arizona	$2,250	**$3,000**	3.4%	**3.9%**	1.4%	**3.9%**	$4,150	**$5,620**	2.6%	**3.4%**	1.0%	**3.4%**
Arkansas	$3,500	**$4,010**	4.7%	**5.0%**	4.7%	**5.0%**	$6,240	**$7,600**	4.1%	**4.7%**	4.1%	**4.7%**
California	$3,120	**$3,650**	7.4%	**7.9%**	7.4%	**7.9%**	$6,860	**$8,380**	6.4%	**7.4%**	6.4%	**7.4%**
Colorado	$2,500	**$3,100**	3.7%	**4.3%**	1.5%	**4.3%**	$4,270	**$5,640**	2.9%	**3.7%**	1.1%	**3.7%**
Connecticut	$2,430	**$3,080**	0.0%	**0.0%**	1.9%	**5.0%**	$4,370	**$5,580**	0.0%	**0.0%**	1.6%	**4.7%**
Delaware	$2,620	**$3,150**	6.6%	**7.7%**	2.7%	**7.7%**	$5,130	**$6,450**	6.2%	**7.2%**	2.5%	**7.2%**
District of Columbia	$3,750	**$4,630**	7.4%	**7.9%**	3.0%	**7.9%**	$6,800	**$8,730**	6.4%	**7.4%**	2.6%	**7.4%**
Florida	$1,250	**$1,510**	0.0%	**0.0%**	0.0%	**0.0%**	$2,110	**$2,720**	0.0%	**0.0%**	0.0%	**0.0%**
Georgia	$3,180	**$3,640**	4.0%	**4.3%**	4.0%	**4.3%**	$5,750	**$6,980**	3.5%	**4.0%**	3.5%	**4.0%**
Hawaii	$2,990	**$3,910**	6.1%	**6.6%**	2.4%	**6.6%**	$5,480	**$7,230**	5.8%	**6.6%**	2.3%	**6.6%**
Idaho	$3,090	**$3,880**	5.0%	**5.4%**	2.0%	**5.4%**	$5,460	**$7,190**	4.4%	**5.0%**	1.7%	**5.0%**
Illinois	$3,030	**$3,460**	1.7%	**1.8%**	1.7%	**1.8%**	$5,430	**$6,640**	1.5%	**1.7%**	1.5%	**1.7%**
Indiana	$2,890	**$3,400**	2.0%	**2.2%**	0.8%	**2.2%**	$5,330	**$6,560**	1.7%	**2.0%**	0.7%	**2.0%**
Iowa	$3,560	**$4,470**	5.2%	**6.0%**	2.1%	**6.0%**	$6,100	**$8,100**	4.4%	**5.7%**	1.8%	**5.7%**
Kansas	$2,780	**$3,550**	3.5%	**4.0%**	1.4%	**4.0%**	$5,290	**$7,190**	3.0%	**4.2%**	1.2%	**4.2%**
Kentucky	$2,700	**$3,130**	2.8%	**3.2%**	2.8%	**3.2%**	$4,580	**$5,730**	2.1%	**2.8%**	2.1%	**2.8%**
Louisiana	$1,060	**$1,380**	1.8%	**2.0%**	0.7%	**2.0%**	$1,720	**$2,490**	1.3%	**1.8%**	0.5%	**1.8%**
Maine	$3,310	**$4,190**	6.1%	**6.6%**	2.5%	**6.6%**	$6,820	**$8,880**	5.8%	**6.7%**	2.3%	**6.7%**
Maryland	$3,450	**$4,210**	5.0%	**5.4%**	2.0%	**5.4%**	$6,140	**$7,730**	4.4%	**5.0%**	1.7%	**5.0%**
Massachusetts	$4,320	**$4,730**	3.6%	**3.9%**	7.2%	**7.8%**	$7,510	**$8,830**	3.1%	**3.6%**	6.2%	**7.2%**
Michigan	$4,900	**$5,600**	3.8%	**3.8%**	1.5%	**3.8%**	$9,390	**$11,290**	3.1%	**3.6%**	1.2%	**3.6%**

The table shows the impact of tax reform on the state and local taxes of two families of four. Arthur Andersen & Co. computed taxes and marginal tax rates (the rates on the last dollar of income) for 1985 and 1988, when federal rate reductions will be fully effective. The entries represent the out-of-pocket costs of state and local taxes—the taxes and rates the families pay minus what they save by deducting state and local taxes on their federal returns. The family with $60,000 of income has one earner with a $50,000 salary and $10,000 of capital gains; the $120,000 family has two earners—one making $75,000, the other $35,000—and the same $10,000 capital gain. Neither family has any tax shelters or consumer interest deductions. Both claim average sales-tax, miscellaneous, and charitable deductions for their income.

bined federal and state taxes on capital gains for the two families in the FORTUNE study would double in more than three-quarters of the states and the District of Columbia.

If the $120,000 family lives in Iowa, its capital gains rate—net of the savings from deducting that tax on its federal return—rises from 1.8% to 5.7%. The family's combined federal and state tax on capital gains zooms from 18.6% to 38.7%. In Delaware, the net capital gains rate for the $60,000 family goes from 2.7% to 7.7%; the combined federal and state gains tax goes from 15.9% to 35.7%. More than ever, the best states for investors are those with no tax on capital gains: Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming.

How will the states cope with the effects of federal tax reform? The four where income taxes will fall are already working on adjustments to recoup the lost revenue. Some politicians who expect a revenue windfall say they intend to keep some or all of the money. These include Montana Governor Ted Schwinden, Mayor Marion Barry of the District of Columbia, and gubernatorial candidates in Iowa, Virginia, and Wisconsin. And experts see more takers in the wings. Says Harold A. Hovey, editor of a newsletter called *State Budget and Tax News*: "Look for substantial interest in keeping the additional money in states with fiscal problems, like Alabama, Arkansas, New Mexico, Mississippi, Iowa, Louisiana, and Oklahoma."

The governors of New York, Michigan, Ohio, California, and Minnesota all pledge to cut taxes enough to offset their windfalls. But state legislators are talking about "reforms" that will leave high-income families paying more than they do now and others paying less. And don't look to the statehouse for capital gains relief. Says Raymond Scheppach, executive director of the National Governors Association: "Most states will go along with the federal government's new treatment of capital gains. It's too complicated to do otherwise." One thing, at least, seems certain. As Hovey puts it, "Next year will be the hottest in state tax policy in the decade." ■

	$60,000 FAMILY INCOME						$120,000 FAMILY INCOME					
	STATE AND LOCAL TAXES		MARGINAL STATE INCOME TAX RATE		MARGINAL STATE CAPITAL GAINS RATE		STATE AND LOCAL TAXES		MARGINAL STATE INCOME TAX RATE		MARGINAL STATE CAPITAL GAINS RATE	
STATE	1985	1988	1985	1988	1985	1988	1985	1988	1985	1988	1985	1988
Minnesota	$3,460	$4,350	6.6%	7.1%	2.7%	7.1%	$6,580	$8,590	5.2%	6.6%	2.1%	6.6%
Mississippi	$2,600	$3,130	3.2%	3.4%	3.2%	3.4%	$4,800	$6,050	2.8%	3.2%	2.8%	3.2%
Missouri	$2,670	$3,320	2.8%	3.2%	1.1%	3.2%	$4,650	$6,220	2.1%	2.8%	0.8%	2.8%
Montana	$2,630	$3,210	4.7%	5.4%	1.9%	5.4%	$4,880	$6,360	3.6%	4.7%	1.4%	4.7%
Nebraska	$3,580	$3,940	4.2%	3.8%	1.7%	3.8%	$7,410	$8,400	4.5%	4.2%	1.8%	4.2%
Nevada	$1,020	$1,260	0.0%	0.0%	0.0%	0.0%	$1,720	$2,240	0.0%	0.0%	0.0%	0.0%
New Hampshire	$2,090	$2,240	0.0%	0.0%	0.0%	0.0%	$4,200	$4,850	0.0%	0.0%	0.0%	0.0%
New Jersey	$3,860	$4,280	2.4%	2.5%	2.4%	2.5%	$7,690	$9,090	2.0%	2.4%	2.0%	2.4%
New Mexico	$1,940	$2,290	3.6%	3.8%	1.4%	3.8%	$4,090	$5,250	3.8%	4.3%	1.5%	4.3%
New York	$5,120	$6,000	7.2%	7.2%	4.0%	9.9%	$9,470	$11,800	5.8%	7.2%	3.2%	9.9%
North Carolina	$3,390	$3,870	4.7%	5.0%	4.7%	5.0%	$6,030	$7,340	4.1%	4.7%	4.1%	4.7%
North Dakota	$2,120	$2,380	2.2%	2.1%	0.9%	2.0%	$4,250	$4,930	2.5%	2.2%	1.0%	2.2%
Ohio	$2,920	$3,570	4.2%	4.6%	1.7%	4.6%	$6,140	$7,870	5.2%	6.1%	2.1%	6.1%
Oklahoma	$2,440	$2,930	3.8%	4.1%	1.5%	4.1%	$4,520	$5,880	3.3%	3.8%	1.3%	3.8%
Oregon	$3,940	$4,720	4.7%	5.4%	2.1%	5.4%	$7,910	$9,620	5.8%	6.7%	2.5%	6.7%
Pennsylvania	$2,800	$3,130	1.6%	1.7%	1.6%	1.7%	$5,100	$6,090	1.4%	1.6%	1.4%	1.6%
Rhode Island	$3,750	$4,150	4.8%	4.4%	1.9%	4.4%	$7,700	$8,810	5.1%	4.8%	2.1%	4.8%
South Carolina	$3,090	$3,530	4.4%	4.7%	1.8%	4.7%	$5,480	$6,840	3.8%	4.4%	1.5%	4.4%
South Dakota	$2,110	$2,450	0.0%	0.0%	0.0%	0.0%	$3,840	$4,730	0.0%	0.0%	0.0%	0.0%
Tennessee	$1,540	$1,870	0.0%	0.0%	0.0%	0.0%	$2,610	$3,370	0.0%	0.0%	0.0%	0.0%
Texas	$1,660	$1,920	0.0%	0.0%	0.0%	0.0%	$3,070	$3,750	0.0%	0.0%	0.0%	0.0%
Utah	$3,080	$3,960	3.6%	4.1%	1.4%	4.1%	$5,200	$7,110	2.8%	3.6%	1.1%	3.6%
Vermont	$1,660	$1,810	5.4%	5.0%	2.2%	5.0%	$3,640	$3,900	5.8%	5.4%	2.3%	5.4%
Virginia	$3.010	$3,620	3.9%	4.1%	1.5%	4.1%	$5,390	$6,800	3.3%	3.9%	1.3%	3.9%
Washington	$1,540	$1,880	0.0%	0.0%	0.0%	0.0%	$2,660	$3,410	0.0%	0.0%	0.0%	0.0%
West Virginia	$2,350	$3,170	5.0%	6.6%	2.0%	6.6%	$5,860	$7,790	7.3%	8.6%	2.9%	8.6%
Wisconsin	$4,680	$5,510	6.8%	6.8%	2.7%	6.8%	$8,490	$10,560	5.5%	6.7%	2.2%	6.7%
Wyoming	$840	$1,050	0.0%	0.0%	0.0%	0.0%	$1,350	$1,800	0.0%	0.0%	0.0%	0.0%

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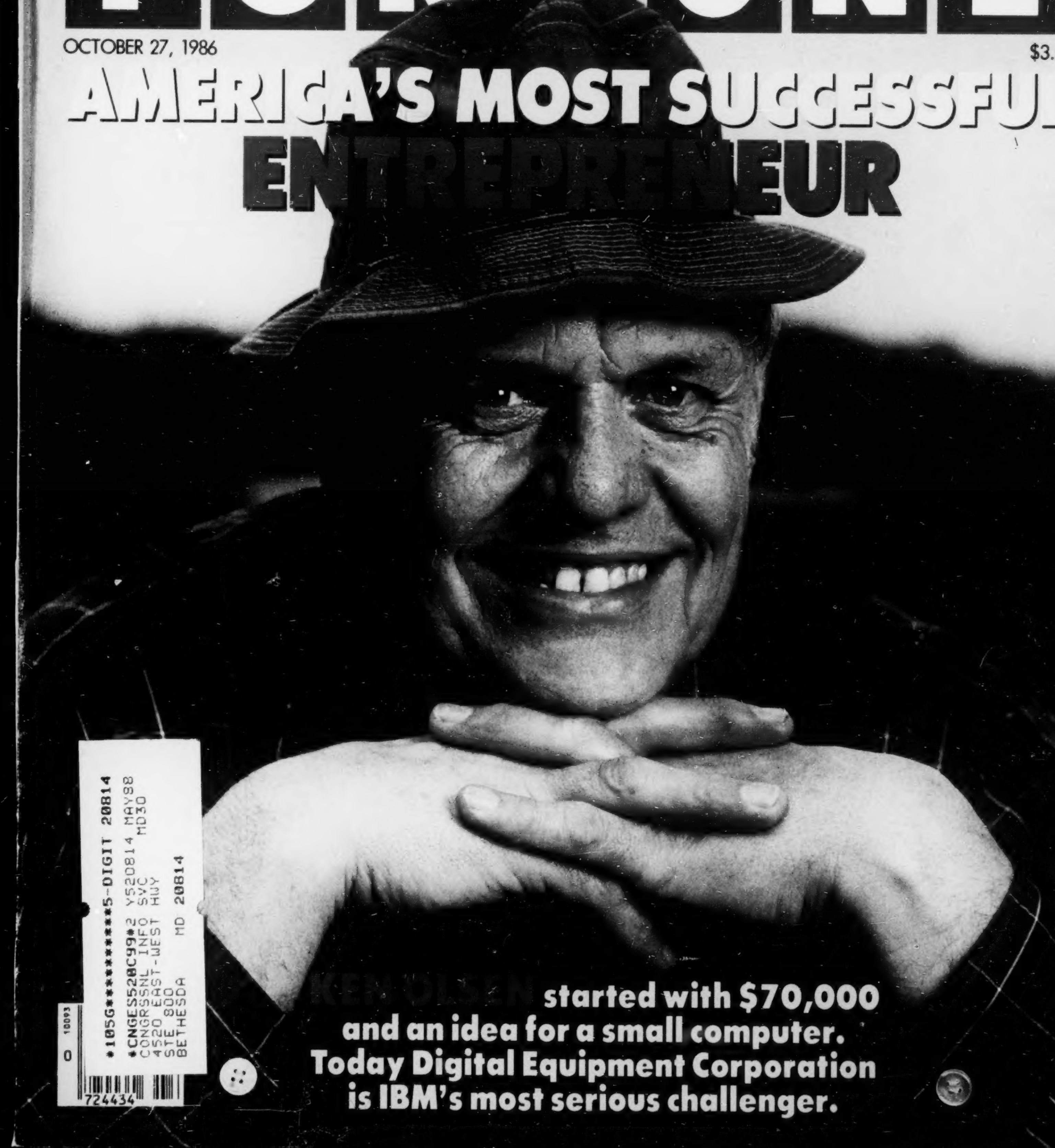

AMERICA'S MOST SUCCESSFUL ENTREPRENEUR

KEN OLSEN started with $70,000 and an idea for a small computer. Today Digital Equipment Corporation is IBM's most serious challenger.

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FORTUNE
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George Lange photographed Digital Equipment Corp. founder and president Kenneth Olsen in a rare informal portrait at the Sudbury River canoe landing near his home in Massachusetts. See page 24.

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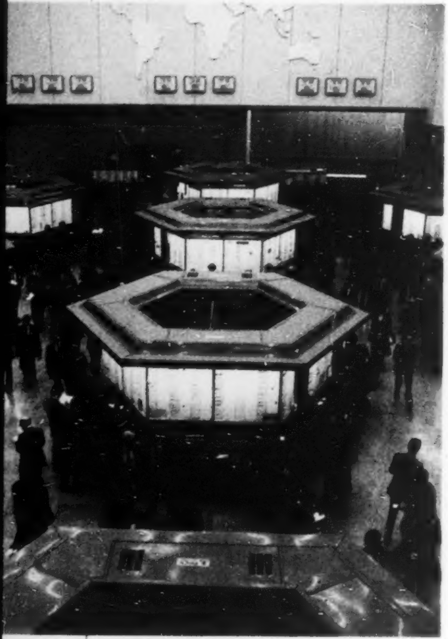
NEWS/TRENDS

Big Bang: U.S. banks hope the shot will be heard



[illegible]—GAMMA-LIAISON

YANK BANKS IN LONDON	TOTAL ASSETS in billions	EMPLOYEES in London
Citicorp	$183.4	3,000
Chase Manhattan	$90.6	2,480
J.P. Morgan	$72.7	1,359
Bankers Trust	$55.4	710
Security Pacific	$51.8	1,500

These U.S. banks will push hardest into London's deregulated markets. Citicorp, Chase, and Security Pacific bought British brokerages.

■ When the explosion sounds in London on October 27, U.S. banks will have a bit more at stake than scores of rivals from around the world. While wrangling in the newly deregulated financial markets, the Yank banks will be trying to bolster a case for similar unshackling at home.

The Americans see a chance to prepare for, and even speed up, the repeal of Glass-Steagall, the law that prohibits banks from underwriting securities in the U.S. Says David R. Lovejoy, who heads the commercial and investment banking operations for **Security Pacific** in London: "We want to prove to the world that we can act professionally and profitably in a totally unregulated environment, and that Glass-Steagall is wrong."

Nothing stops banks from acting professionally, but profitability is another matter. U.S. investment banks such as **Goldman Sachs** and **Salomon Brothers** have prepared for Big Bang by luring employees with London expertise (salaries have skyrocketed), and the most aggressive U.S. banks have snapped up British firms to teach them the how-tos of trading stocks and underwriting bonds. Security Pacific invested about $100 million in **Hoare Govett**, one of the largest British brokerages. **Citicorp** and **Chase Manhattan** each bought two smaller London houses. Citicorp's $12 billion of capital worldwide, the greatest of any firm in London, will allow it to take risks and sustain losses as it vies for market share.

And losses there will be. Big Bang scraps fixed brokerage commissions, and some industry analysts predict commissions will be cut in half. Underwriters of Eurobonds—securities issued outside the borrower's home country—have never been regulated; they have knocked fees down so low that few are making money. With the number of firms allowed to trade British government bonds swollen from six to 27, some players will surely drop out of that market. **Bank of America** already has.

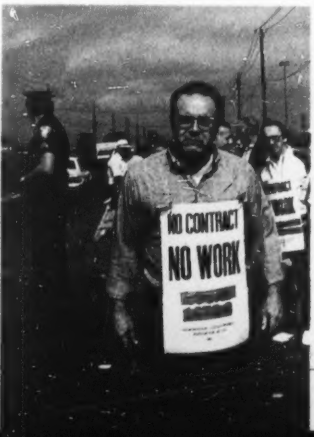
Investment bankers note that U.S. commercial banks have little experience in underwriting securities. "They're startirg from scratch," says one. Citicorp, Security Pacific, and Chase probably have the capital—and with their acquisitions, the know-how—to do well. Perhaps a dozen other outfits will emerge as successful full-service firms, including several U.S. investment banks, some large British and European banks, and a few Japanese firms. For better or worse, that is as good a model as any for a Wall Street without Glass-Steagall.

Heavy weather for Northeast ports

■ The International Longshoremen's brief strike against a dozen East Coast ports from Maine to Virginia may cause some shippers to steer clear of those harbors for a long time. Philadelphia, Norfolk, Baltimore, and New York, for instance, might lose valuable cargo and jobs to safer harbors, such as Savannah, Charleston, New Orleans, and even Los Angeles, where strikes are not in prospect.

Longshoremen on Northeast waterfronts face increasing competition from non-union facilities as well as railroads. A Japanese automaker may find it cheaper to land cars on the West Coast and send them by rail to New York than to ship them directly to the East Coast. Still, the strike has shown that the longshoremen, whose ranks have dwindled with the spread of containerized shipping, remain a formidable force.

A longshoreman on strike



YVONNE HEMSEY—GAMMA-LIAISON

Honeywell's way to fight the big guys

■ Computer-industry analysts have been warning that **Honeywell**, with only 2% of the mainframe market, will have to restructure or give up competing with giants **IBM** and **DEC** (see cover story). It looks like the $6.6-billion-a-year electronics and defense company will restructure. It announced it was negotiating to combine its computer business with Japan's **NEC** and France's government-owned **Bull.**

Honeywell has strong ties to both companies, and systems made by all three are largely compatible. France's new conservative regime plans to sell Bull and may be reluctant to shell out cash for a combination. Negotiations will be complex. But Daniel Mandresh, a Merrill Lynch security analyst, says, "It doesn't matter who owns what piece of what. A combination with NEC and Bull will make a stronger computer company."

STAFF *David Kirkpatrick, Michael Rogers, Patricia Sellers, H. John Steinbreder, and Eleanor Johnson Tracy*

THE JAPANESE WANT TO BE YOUR BANKERS

Japan's financial giants are bulging with yen and bent on becoming global powerhouses in everything from retail banking to underwriting. They are cutting interest rates and fees—to the chagrin of competitors and the delight of borrowers.

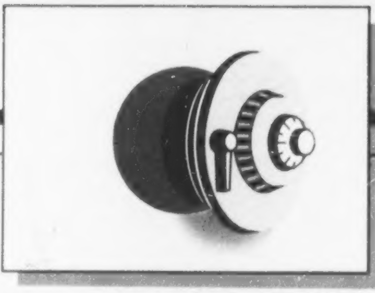
■ *by Gary Hector*

JAPAN'S HUGE financial firms, sitting astride global markets like 300-pound sumo wrestlers, are fast becoming the most potent force in world finance. Their strategy should be familiar to anyone who remembers what happened in cars and stereos. First they demand quality and high productivity from workers. Then they seize on cost advantages, such as the rock-bottom interest rates Japanese banks pay on savings accounts. And finally they produce a less expensive copy of the foreign competitor's product—not manufactured wares this time, but bank loans and the underwriting of securities.

Fed by the fanatic propensity of ordinary Japanese to save and by seemingly unending trade surpluses that need to be recycled abroad, Japan's commercial and investment banks are snatching significant chunks of business in such major financial hubs as London and New York. "The feeling I get," says George Vojta, executive vice president of Bankers Trust New York, "is that the Japanese are taking a lot of new high-volume, low-margin business."

Japanese banks and brokerage firms, minor players in the international finance game a half-dozen years ago, routinely underwrite bond issues in Europe for General Electric, Exxon, and IBM. At U.S. Treasury bond auctions, the Japanese sometimes buy 60% of a new offering. Japanese commercial banks, prone to lend on more favorable terms than American competitors, now hold 8.4% of all commercial loans in the U.S. Thomas Chandos, director of international capital markets at Kleinwort Benson Ltd., London's biggest merchant bank, thinks he knows the shape of

In New York: *Akira Shimizu, president of Nomura Securities' U.S. subsidiary, has a bond operation a-babble with Brooklyn accents.*



JAVIER ROMERO

COMMERCIAL BANK	ASSETS IN BILLIONS*	INVESTMENT BANK	EQUITY IN BILLIONS*
Dai-Ichi Kangyo† JAPAN	$190.0	Nomura Securities† JAPAN	$3.4
Citicorp USA	**$173.6**	**Merrill Lynch** USA	**$2.3**
Fuji JAPAN	$170.3	Nikko Securities† JAPAN	$2.1
Sumitomo JAPAN	$164.9	Daiwa Securities† JAPAN	$2.0
Mitsubishi JAPAN	$161.5	**Salomon Brothers** USA	**$1.7**
Sanwa† JAPAN	$150.0	Yamaichi Securities† JAPAN	$1.6
Norinchukin† JAPAN	$136.9	**Shearson Lehman Brothers** USA	**$1.2**
Industrial Bank of Japan† JAPAN	$125.7	**Prudential-Bache Securities** USA	**$1.0**
Banque Nationale de Paris FRANCE	**$123.1**	**Dean Witter Financial Services** USA	**$0.9**
Crédit Agricole FRANCE	**$122.9**	**Goldman Sachs** USA	**$0.9**

*Japanese banks as of 3/31/86, Goldman Sachs as of 11/30/85, all others as of 12/31/85. †Excludes subsidiaries.

SOURCE: IBCA BANKING ANALYSIS LTD. (LONDON), SECURITIES INDUSTRY ASSOCIATION, AND COMPANY REPORTS

Japan's Rising Financial Prominence

Seven of the world's biggest commercial banks and four of the top investment firms are Japanese. Dai-Ichi Kangyo toppled Citicorp as No. 1 commercial bank with a little help from the muscular yen.

the future. "Most of us should expect to see Japan as the dominant influence in the financial markets for the rest of our working lives," he says.

While unnerving to U.S. and European money men, the onslaught has a bright side. Large corporations and local governments, as well as the U.S. Treasury, are borrowing at lower rates than they thought possible. Bright young Americans only a few years out of business school are finding Japanese financial companies eager to hire; those with more experience can demand big starting salaries.

Money is the ammunition in the Japanese financial offensive. In the first seven months of 1986 a record $68 billion poured out of Japan in search of long-term investments. Unlike Arab oil potentates, who recycled most of their trade surpluses in the 1970s through U.S. and European banks, Japanese investors use their own. Early last year Japan became the largest creditor nation in the world even as the U.S. joined the ranks of debtors. By 1995, one Japanese study projects, the rest of the world will owe Japan some $1 trillion.

An elite of global financial powerhouses is likely to emerge over the next decade as computer technology enables the London, New York, and Tokyo financial markets to blend into one. In Japan both commercial and investment banks, separated by law like their U.S. brethren, are jockeying to stay in the top ranks. To do so they must grab even more business from competitors, especially in the U.S., where finance is still dominated by the home team. Says Akira Shimizu, 49, the impeccably tailored president of Nomura's U.S. subsidiary: "Without more U.S. companies as clients, we can't continue to rank high in world markets."

TO SIGN UP clients, the Japanese offer irresistibly cheap services. "They're willing to take losses for ten years in order to build a business," says David Burnett, executive director of London's Orion Royal Bank. Even the most Westernized Japanese bankers disdain U.S. and European notions of an acceptable profit. Yasuhiko Watanabe, 44, senior deputy general manager in London for Mitsubishi Bank, Japan's fourth largest, represents a new generation of internationally sophisticated Japanese bankers. A veteran of six years in New York, he speaks English fluently, sends his oldest child to a U.S. prep school, and occasionally displays a disarming Western candor. But Watanabe's views on profits remain Japanese. "It's dangerous to concentrate only on quick profit," he says. A senior officer of a large Japanese-owned California bank puts it more bluntly: "The Americans are greedy."

U.S. competitors counter by suggesting the Japanese are "dumping" money, just as they supposedly sometimes sell merchandise below cost to win market share. To a great extent, however, they are merely exploiting some built-in advantages. Japan's commercial banks pay low, government-controlled rates of interest to savers: 3.38% on six-month deposits and a mere 0.38% on passbook accounts. With the government's acquiescence, Japan's securities firms charge high, fixed commissions. That fattens the profits that fuel overseas ventures. Buying 100 shares of a $50 stock costs a Japanese investor $63 in fees, while in the U.S. a discount broker would charge far less.

The Japanese government has dismantled some financial regulations in ways that created new business opportunities for Japanese firms. In 1984, under pressure from the Reagan Administration, Japan relaxed restrictions on yen loans to foreigners. Since then borrowers have created an $18-billion-a-year business in yen-denominated bonds centered in London but dominated by Japanese firms. Shimizu of Nomura says: "This gives us a chance to make a breakthrough in doing business with U.S. firms."

The securities firms are the pacesetters in Japan's global drive. The most fearsome is Nomura, which earned an estimated $3-billion pretax profit in the past 12 months. So colossal is Nomura that its market capitalization, or what the stock market says all its shares are worth, is ten times that of Merrill Lynch. In a takeover financed with stock, Nomura could swallow Merrill Lynch like a bit of predinner sashimi. Ranking far behind Nomura in terms of shareholders' equity are the securities firms of Nikko, Daiwa, and Yamaichi. But even the smallest of these has more equity than most big-name U.S. investment banks.

The big Japanese securities houses have led an assault on the Eurobond market, where borrowers raised $137 billion last year, far more than was floated in the U.S.

REPORTER ASSOCIATE *Alison Bruce Rea*

corporate bond market. Just five years ago there was scarcely a Japanese name among the top underwriters of Eurobonds. Now five Japanese firms rank in the top 20, with Nomura, Daiwa, and Nikko among the top ten. According to *IFR International Financial Review*, a British publication, Japanese securities firms, together with commercial banks, are lead underwriters for about 22% of all Eurobond offerings these days. Only U.S. firms, with a 26% share, play a bigger role.

The Japanese are underwriting bonds at such extremely low prices, competitors argue, that others are finding it harder and harder to make money. The Japanese are not the only ones accused of cutthroat practices; last year the Union Bank of Switzerland drew the same kind of criticism. But the Japanese are a special case because they have so much of the business. Many Japanese firms, obsessed with moving up to a higher position in the rankings of top Eurobond underwriters, are more interested in the sheer volume of deals than in profits. "The problem for non-Japanese firms is whether you should join in the competition for rankings with them," says Andrew Large, chief executive of Swiss Bank Corp. International in London.

DAVID GAMBLE

In London: *Mitsubishi Bank's Watanabe pushes Eurobond deals.*

The most common tactic of the Japanese is underwriting bonds with below-market interest rates. A $300-million Eurobond offering by General Electric in May, for instance, was priced to yield 7% even though a similar GE bond was trading at a yield of more than 7.2%. In this case Yamaichi, the underwriter, may have got burned because the bonds proved hard to sell in the Euromarket.

Marketing, or "stuffing," power enables the Japanese to offer low underwriting commissions and interest rates to borrowers. With their vast retail networks in Japan, the securities firms can shove billions of dollars of bonds into the hands of small investors. Interest rates that look low in the highly competitive international market may look dandy in Sapporo or Osaka.

So formidable is this sales network that the Japanese may be abusing their power. Competitors say they regularly form syndicates with U.S. and European underwriters even though, in effect, they have presold all the securities to Japanese clients. There is nothing illegal about such a practice, which lets the Japanese give the impression they are part of the club and allows other members of the syndicate to collect underwriting fees for doing nothing but putting their names on tombstone ads. But the charade can mislead investors, who expect a broadly underwritten deal to have a big secondary market. A trade group of Euromarket underwriters, the International Primary Market Association, has urged its members not to participate in such bogus syndicates. While the practice may have diminished, scarcely anyone expects it to stop.

Whatever the complaints, the Japanese financial assault has been wildly successful. With chief financial officers looking increasingly at price rather than the long-term relationships with investment banks that once were the norm, the Japanese could build up a tremendous volume of business. Says a senior official of a major British bank, who obviously laments the decline of lasting relationships: "Now that it is a whore's market, outsiders can easily gain market share."

Eurobond dealers aren't the only ones hearing footsteps. All four of Japan's major securities firms are rushing to become primary dealers in U.S. government securities, who buy them at Treasury auctions for resale to other dealers. In the past year each of Japan's big four has lured away talented traders from U.S. firms by paying huge salaries and bonuses. The atmosphere in these Wall Street trading rooms is decidedly American, with Asian faces in the minority, and a typically unruly crowd of traders more likely to shout out orders in Brooklynese than Japanese.

Nomura has beefed up its U.S. trading staff this year from 32 to 52. Daiwa, also expanding, recently opened a corporate bond trading operation. Both Nikko and Yamaichi are bulging with new traders. And the trading teams are doing immense amounts of business: In the second quarter they handled $71 billion in U.S. Treasury bonds and notes alone.

Profits, again, may be scanty, but the Japanese are willing to pay for the entrée. Says Toshio Mori, 53, chairman of Nikko Securities' New York subsidiary, "For the time being, as long as the income is enough to offset the operating cost, I'm satisfied."

JAPAN'S COMMERCIAL banks, though somewhat less fired-up than the securities firms, are also scurrying around the globe for customers. Because of their country's enormous trade surpluses, the banks are loaded with money to lend. They have picked up big market shares in U.S. and European commercial lending, particularly where low interest rates are more important than innovation. Mitsubishi Bank, for example, beat out American competitors with an aggressive bid for a $500-million loan to NWA Inc., the parent of Northwest Airlines, to finance the purchase of Republic Airlines. "They beat us on price," says an executive of a bank that lost out.

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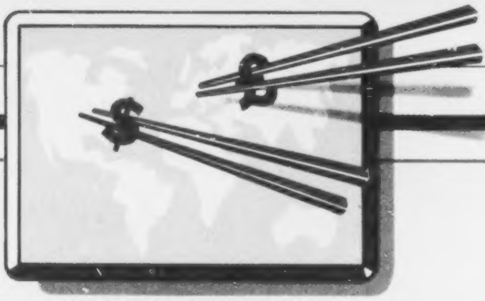
JAVIER ROMERO

INSTITUTION	TRANSACTION
Mitsubishi Bank LENDER	$500-million loan to parent of Northwest Airlines to finance acquisition of Republic Airlines
Nomura Securities LEAD UNDERWRITER	$479.4-million Euroyen offering by Canadian government
Daiwa Securities LEAD UNDERWRITER	$300-million Eurobond offering by General Electric
Nikko Securities LEAD UNDERWRITER	$250-million Eurobond offering by Exxon Credit Corp.
Long-Term Credit Bank of Japan LEAD UNDERWRITER	$200-million Eurobond offering by PepsiCo
Nomura Securities LEAD UNDERWRITER	$200-million Eurobond offering by IBM Credit Corp.
Nomura Securities LEAD UNDERWRITER	$200-million Eurobond offering by General Motors Acceptance Corp.

SOURCE: SECURITIES DATA CO. INC., OTHER SOURCES

Choice Deals With an Asian Flavor

Over the past eight months, as this sampler shows, a blue-ribbon roster of North American clients have turned to the Japanese. General Electric, a repeat customer, has raised a total of $1.2 billion.

Within the past six months many Japanese banks have also been buying floating-rate notes in Europe and commercial loans from banks in the U.S. Still saddled with big loans to Latin American governments, the Japanese have been avoiding risky or relatively unknown borrowers. But that appears to be changing. In the past few months they have started to lend on U.S. leveraged buyout deals, including those involving Beatrice Cos., Safeway, and Macy's.

The banks have moved in on another niche: insuring U.S. municipal bonds. For a fee the big Japanese banks, most of which are AAA-rated, guarantee the repayment of debt by a state or local government, in effect passing on their higher credit rating to the municipal bond. The borrower pays a lower interest rate. At times the Japanese earn less than one-tenth of a percentage point for this service, or less than half what a U.S. bank might consider minimally profitable. Last year the Japanese wrote such guarantees on $18 billion of new muni bonds, nearly half the total insured and 72% of the volume done by foreign banks.

The Japanese are becoming big players in U.S. retail banking. Their biggest beachhead is in California, where they own five of the 11 largest banks. "By the early 1990s there may be as few as 30 nationwide banks that will control 50% of all deposits in the U.S.," says Duane Hansen, managing director of worldwide financial services for the Arthur Andersen accounting firm. "Four to six of those could well be foreign, probably Japanese."

Profits growth has slowed at the big banks, partly because they are beginning to have trouble lending all their money. This is forcing them to alter long-term strategies. The clearest evidence was Sumitomo Bank's decision to buy a $500-million stake in Goldman Sachs, one of Wall Street's premier investment banks. Apparently Sumitomo believes it can't stay competitive in the U.S. without developing skills as an investment banker. Sumitomo gets no voice in management, just a claim on a paltry 12.5% of Goldman's future profits. But outsiders assume the Japanese are taking their traditionally long view. Sumitomo could easily demand a say—and more of the profits—later on.

Not everyone is convinced that the Japanese juggernaut will keep rolling. Critics note that while the overseas offices of Japanese firms are staffed with a few polished, sophisticated executives, the hallways are filled with chain-smoking Japanese-speaking specialists wearing dark-blue polyester suits. Language and culture remain a problem in many business dealings. "They have

NEW YORKERS WIN A FEW IN TOKYO

■ Cracking the Tokyo financial markets has been tough for Western firms. "Sisyphus had it easy," says Brian Waterhouse, a financial analyst in Tokyo for the British brokerage house of James Capel, referring to the mythological king doomed to push uphill a boulder that kept rolling back. But two U.S. institutions, Salomon Brothers and Bankers Trust New York, have grabbed impressive slices of business. Local talent and connections have made the difference.

Salomon, an old hand at yen bonds outside Japan, opened its Tokyo office in 1982. The best way to make money on securities inside Japan, it decided, was to use top Japanese traders. Salomon recruited Shigeru Myojin from Yamaichi Securities, a leading brokerage house, and hired bond traders with prior experience at Daiwa, Wako, and other firms. New York gave the Tokyo office enough capital to take huge positions in the market. The strategy worked. In the special niche of bond futures trading, Salomon now ranks among the top three brokerage houses in Japan, the only Western outfit in such fast company.

With the help of a powerful partner, Bankers Trust has grabbed $770 million in Japanese pension assets and corporate funds—more than half the business garnered by all foreign firms combined. Most foreign operations have worked closely with Japanese banks and have generally shared local partners with each other. Bankers Trust has had Japan's Sumitomo banking group all to itself, and the partner's role has been limited to introducing Japanese corporate clients to Bankers Trust. Clients are turning up so fast the New York bank plans to add ten more to its Tokyo staff of 20 by next spring.—**Frederick Hiroshi Katayama**

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a real weakness as salesmen," says a Wall Street consultant.

The Japanese have hired a few American and British stars in recent months, such as Stephen Axilrod, formerly Chairman Paul Volcker's top staffer at the Federal Reserve Board, who is now vice chairman of Nikko Securities in New York. But it remains to be seen whether the Japanese can hang on to top-flight non-Japanese talent.

The ability of the Japanese to innovate is still in doubt. "They are excellent copiers and excellent improvers, but not good innovators," says a senior officer at a major New York bank. He hurriedly adds: "This shouldn't lead one to complacency." In a quest for sophistication, the Japanese have hired some of the "rocket scientist" types who have created exotic new trading techniques at Wall Street investment firms. Most Japanese financial houses have been hiring merger and acquisition specialists. But it may take years to catch up. "The real brainpower is still with the American firms," says Rodney Chase, group treasurer of British Petroleum.

DESPITE ALL the money they have to lend, Japanese commercial banks are thinly capitalized. That, along with weak profits, could slow their overseas expansion. IBCA Banking Analysis Ltd., a bank-rating agency in London, considers Japanese banks safe because the government can be counted on to bail them out. But their equity capital is meager by U.S. standards: on average, 2.3% of assets for big banks vs. 4.9% for their U.S. counterparts. A bank cannot prudently allow its deposits and loans to exceed a certain prescribed multiple of stockholders' equity. "If Japanese institutions had amassed shareholders' equity," says Minoru Inouye, president of the Bank of Tokyo, "we'd have dominating power."

Formidable now, the Japanese could become awesome if their government strips away regulatory fetters and lets interest rates rise. Japan's great financial houses would lose the advantage of low interest rates, and foreign firms would get a broader license to hunt for business in Japan. But a recent report by Nomura Research Institute, a think tank supported by Nomura Securities, urged the government to get on with deregulation. Nomura's heavy thinkers, who want the government to flex Japan's financial muscles, believe that under deregulation their country's institutions would come out far, far ahead. F

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FORTUNE

SPECIAL ISSUE

THE 1987 INVESTOR'S GUIDE

FEATURING THE FORTUNE CHALLENGE

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THE LEADERS OF

■ The lists arrayed on these two pages present the top tens in ten varieties of investments. Two of the lists involved some fairly fancy database searching. The information for both of these came from Institutional Brokers Estimate System, a service of the New York brokerage firm Lynch Jones & Ryan. IBES collects estimates of future earnings for companies large and small from 2,500 security analysts. One list shows the highest estimated rates of growth in earnings per share among stocks with below-average price-earnings ratios. The other shows the lowest P/E ratios among companies with above-average estimated growth. In both cases, the "average" is of the IBES universe of 3,500 companies. FORTUNE excluded savings and loans from the list of lowest P/E ratios; otherwise it would have been almost all S&Ls.

In the five lists of mutual funds, the funds are ranked by total return—appreciation with all dividends and capital gains reinvested. The information for all five came from the New York firm Lipper Analytical Services. The other providers of lists: Donoghue's Money Fund Report, Holliston, Massachusetts; 100 Highest Yields, North Palm Beach, Florida; IDD Information Services, New York.

EQUITY FUNDS

	Total return for 12 months ended 9/30
Eaton Vance Total Return Boston	63.10%
Bruce Fund Chicago	60.21%
IDS Strategy Aggressive Equity Minneapolis	46.92%
Fidelity Special Situations Boston	46.10%
Twentieth Century Vista Kansas City, Mo.	45.29%
ABT Emerging Growth Cincinnati	45.24%
Twentieth Century Giftrust Kansas City, Mo.	44.22%
NEL Retirement Equity Boston	43.81%
Fidelity Magellan Fund Boston	43.55%
UST Master Equity New York	43.32%

The "equity funds" tent covers types of funds the trade calls growth, equity income, and so forth.

INTERNATIONAL FUNDS

	Total return for 12 months ended 9/30
Fidelity Overseas Fund Boston	106.83%
G.T. Japan Growth Fund San Francisco	91.62%
Merrill Lynch Pacific Fund Princeton, N.J.	85.20%
Vanguard World-International Growth Valley Forge, Pa.	82.67%
G.T. Pacific Growth Fund San Francisco	82.11%
G.T. International Growth San Francisco	81.48%
GAM International New York	79.62%
Newport Far East Fund Richmond, Va.	77.78%
Transatlantic Fund New York	77.35%
Alliance International Fund New York	76.05%

International funds purchase only securities traded primarily outside the U.S.

MONEY MARKET FUNDS

	Yield over 12 months ended 8/31
Flex-Fund Money Market Fund Dublin, Ohio	7.46%
Kemper Money Market Fund Chicago	7.41%
Counsellors Cash Reserve New York	7.38%
Merrill Lynch Ready Assets Trust Princeton, N.J.	7.32%
Transamerica Cash Reserve Los Angeles	7.32%
Trinity Liquid Assets Trust New York	7.32%
Value Line Cash Fund New York	7.27%
Vanguard Money Market Trust, Prime Portfolio Valley Forge, Pa.	7.27%
Mariner Cash Management Fund New York	7.26%
Renaissance Assets Trust Money Market Fund Detroit	7.26%

As with the list of tax-exempt funds, the difference between fund and trust is faint.

ONE-YEAR CERTIFICATES OF DEPOSIT

	Effective annual yield as of 10/1
Alamo Savings of Texas San Antonio	7.71%
Vernon Savings & Loan Vernon, Texas	7.63%
Commodore Savings Dallas	7.59%
Bay Savings Bank Richmond, Va.	7.40%
Gill Savings San Antonio	7.36%
Peoples Savings & Loan Llano, Texas	7.35%
Virginia Beach Federal Savings & Loan Virginia Beach, Va.	7.35%
Western Federal Savings Gatesville, Texas	7.35%
FirstSouth F.A. Pine Bluff, Ark.	7.34%
Security Savings & Loan Scottsdale, Ariz.	7.34%

All these institutions accept out-of-state deposits. The minimum is either $500 or $1,000.

THEIR PACKS

SMALL COMPANY GROWTH FUNDS

	Total return for 12 months ended 9/30
Gradison Opportunity Growth Cincinnati	42.98%
Janus Venture Fund Denver	35.02%
Dreyfus New Leader Fund Garden City, N.Y.	31.18%
Massachusetts Financial Emerging Growth Boston	30.31%
Fidelity OTC Portfolio Boston	30.25%
GIT Equity Special Growth Arlington, Va.	30.08%
Acorn Fund Chicago	27.98%
Drexel Emerging Growth Series New York	26.87%
"New Beginning" Growth Fund Minneapolis	26.45%
United New Concepts Kansas City, Mo.	25.69%

There is no standard definition of "small." Each fund has its own fix on what it means.

CORPORATE BOND FUNDS

	Total return for 12 months ended 8/31
Hutton Investment, Bond & Income Series New York	31.31%
United Bond Fund Kansas City, Mo.	24.41%
Sigma Income Shares Wilmington, Del.	22.73%
Phoenix High Quality Bond Fund Hartford, Conn.	22.53%
Bond Fund of America Los Angeles	20.86%
Keystone Custodian Funds, B-1 Series Boston	20.47%
Babson Bond Trust Kansas City, Mo.	20.37%
GIT Income Trust A-Rated Fund Arlington, Va.	20.35%
Kemper Income & Capital Preservation Fund Chicago	20.11%
Dreyfus A Bonds Plus Garden City, N.Y.	19.95%

With all these funds, corporate bonds rated A or better make up more than 60% of the portfolio.

TAX-EXEMPT BOND FUNDS

	Total return for 12 months ended 8/31
SteinRoe Managed Municipals Chicago	30.13%
CIGNA Municipal Bond Fund Springfield, Mass.	28.01%
NEL Tax-Exempt Bond Fund Boston	27.86%
Financial Tax-Free Income Shares Englewood, Colo.	27.56%
United Municipal Bond Fund Kansas City, Mo.	27.24%
Mutual of Omaha Tax-Free Income Fund Omaha	27.20%
John Hancock Tax-Exempt Income Trust Boston	26.33%
IDS Tax-Exempt Bond Fund Minneapolis	25.75%
Seligman National Tax-Exempt Series New York	25.06%
Bull & Bear Tax-Free Income New York	25.03%

Exempt here means exempt from federal tax, not necessarily state and local income taxes.

HIGH-GROWTH STOCKS

	Estimated annual growth in earnings per share over next five years	Price-earnings ratio
Safeguard Scientifics High-tech equipment; King of Prussia, Pa.	53%	15
Banner Industries Diversified manufacturing; Cleveland	41%	10
S.A.Y. Industries Containers; Leominster, Mass.	40%	14
3Com Corp. Communications equipment; Mountain View, Calif.	40%	16
Munsingwear Inc. Clothing; Minneapolis	39%	14
Fries Entertainment TV movies; Los Angeles	35%	8
Days Inns Corp. Motels; Atlanta	35%	9
Lafarge Corp. Building products; Dallas	35%	15
Businessland Computer retailing; San Jose, Calif.	33%	15
Sun Microsystems Computer work stations; Mountain View, Calif.	33%	15

Growth means growth in earnings per share, as estimated by analysts who follow the companies.

STOCKS WITH LOW P/E RATIO

	Price-earnings ratio	Estimated growth rate over next five years
Elbit Computers Haifa, Israel	5	20%
De Beers Consolidated Mines Kimberley, South Africa	5	17%
Southmark Corp. Real estate; Dallas	5	15%
CalFed Inc. Financial services; Los Angeles	5	12%
Continental Information Systems Leasing; Syracuse, N.Y.	6	25%
Diamond-Bathurst Bottles; Malvern, Pa.	6	20%
Metro Airlines Houston	6	20%
Allegheny Beverage Food services; Cheverly, Md.	7	15%
Electro-Biology Medical devices; Fairfield, N.J.	7	12%
Citicorp New York	7	11%

Price-earnings ratios are based on estimated earnings for the current fiscal year.

STOCKS WITH BIG RISE AFTER DEBUT

	Increase in price from initial public offering to 9/30
Home Shopping Network Clearwater, Fla.	602%
Flores de New Mexico Plant grower; Las Cruces, N.M.	167%
ATI Medical Equipment rental; Glendale, Calif.	156%
Enviropact Inc. Environmental consulting; Miami	146%
Digitext Inc. Keyboard products; Thousand Oaks, Calif.	118%
Nutmeg Industries Apparel; Tampa	73%
APA Optics Laser systems; Blaine, Minn.	72%
Home Federal Savings Bank, Northern Ohio Lakewood, Ohio	71%
National Industrial Bancorp Hartford, Conn.	68%
Officeland Inc. Used office equipment; Toronto	66%

The list takes in stocks issued during 1986. The percentage rise applies to the September 30 price.